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Money for small business

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BUSINESS WEEK

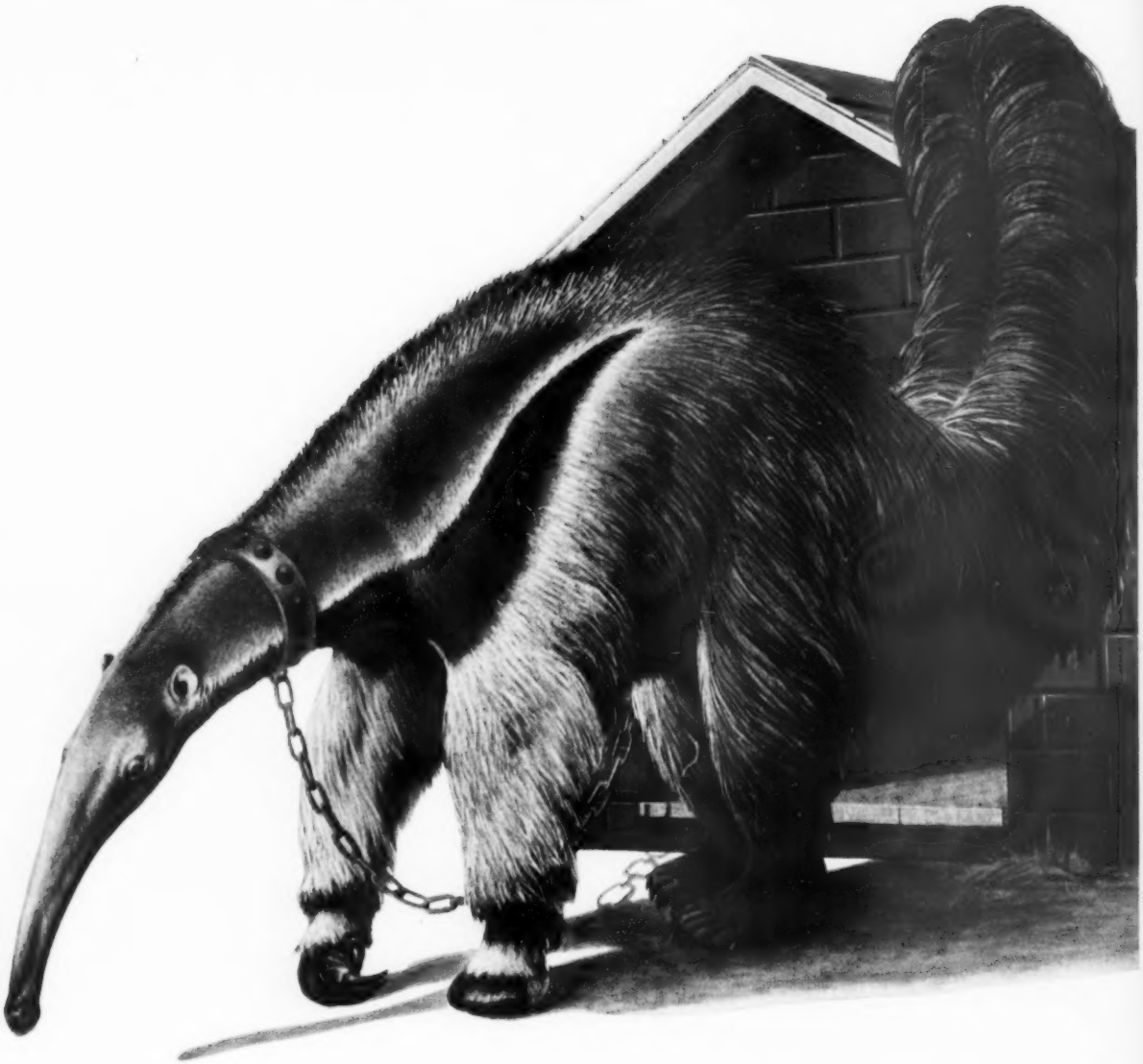
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Allis-Chalmers' Pres. R. S. Stevenson likes to see a new idea on his desk. This one: a power plant that stoops to conquer.
(Management)



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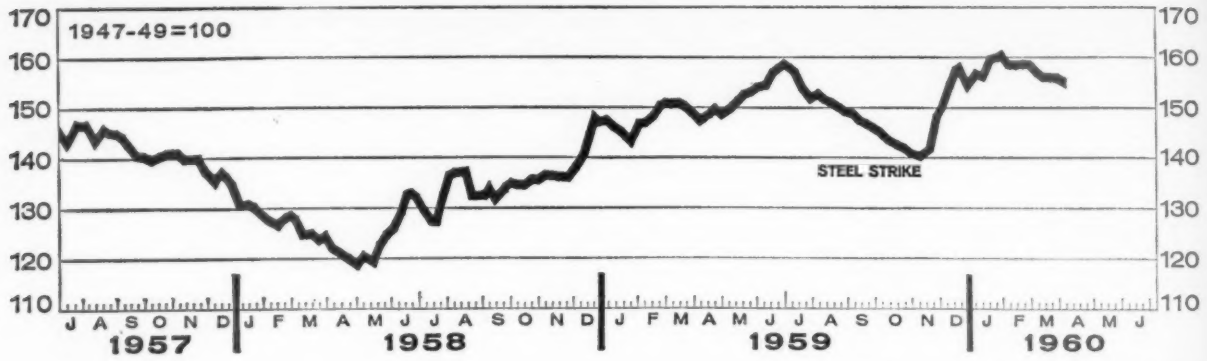
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NUMBER 1597

FIGURES of the WEEK



	1953-55 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	**133.3**	**148.6**	**157.9**	**156.6r**	**155.8***
PRODUCTION					
Steel ingot (thous. of tons)	2,032	2,641	2,654	2,527r	**2,447**
Automobiles	125,553	133,878	138,513	137,385r	**150,555**
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.)	$52,412	$64,886	$62,619	$62,327	**$65,315**
Electric power (millions of kilowatt-hours)	10,819	12,618	14,262	13,951	**13,542**
Crude oil and condensate (daily av., thous. of bbl.)	6,536	7,129	7,153	7,078	**7,151**
Bituminous coal (daily av., thous. of tons)	1,455	1,320	1,373	1,453r	**1,452**
Paperboard (tons)	247,488	295,358	330,475	316,264	**304,514**
TRADE					
Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars)	70	63	55	58	**59**
Carloadings: all others (daily av., thous. of cars)	47	38	37	39	**41**
Department store sales index (1947-49 = 100, not seasonally adjusted)	121	137	107	115	**129**
Business failures (Dun & Bradstreet, number)	198	284	299	286	**356**
PRICES					
Industrial raw materials, daily index (BLS, 1947-49 = 100)	89.2	91.1	91.6	91.7	**92.6**
Foodstuffs, daily index (BLS, 1947-49 = 100)	90.5	80.8	83.3	75.1	**76.0**
Print cloth (spot and nearby, yd.)	19.8¢	18.6¢	22.2¢	20.5¢	**20.5¢**
Finished steel, index (BLS, 1947-49 = 100)	143.9	186.7	186.8	186.8	**186.8**
Scrap steel composite (Iron Age, ton)	$36.10	$36.50	$33.83	$33.17	**$33.17**
Copper (electrolytic, delivered price, E&MJ, lb.)	32.394¢	31.870¢	33.020¢	33.000¢	**33.000¢**
Aluminum, primary pig (U. S. del., E&MJ, lb.)	20.6¢	24.7¢	26.0¢	26.0¢	**26.0¢**
Aluminum, secondary alloy #380, 1% zinc (U. S. del., E&MJ, lb.)	‡	21.84¢	25.02¢	25.04¢	**25.01¢**
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.34	$2.10	$2.12	$2.13	**$2.12**
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	34.57¢	34.50¢	32.05¢	32.04¢	**32.05¢**
Wool tops (Boston, lb.)	$1.96	$1.69	$1.75	$1.76	**$1.74**
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 10)	31.64	56.35	54.17	55.85	**55.74**
Medium grade corporate bond yield (Baa issues, Moody's)	3.59%	4.84%	5.29%	5.19%	**5.18%**
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	2–2⅛%	3⅜%	4¾%	4⅛%	**4⅛%**
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	‡	60,057	59,536	59,164	**59,072**
Total loans and investments, reporting member banks	‡	103,274	101,572	101,510	**101,040**
Commercial, industrial, and agricultural loans, reporting member banks	‡	32,306	31,216	31,947	**31,930**
U. S. gov't guaranteed obligations held, reporting member banks	‡	33,123	25,325	24,843	**24,493**
Total federal reserve credit outstanding	26,424	27,151	27,102	27,189	**26,778**

MONTHLY FIGURES OF THE WEEK		1953-55 Average	Year Ago	Month Ago	Latest Month
Private expenditures for new construction (in millions)	**March**	$2,390	$2,714	$2,597	**$2,705**
Public expenditures for new construction (in millions)	**March**	$980	$1,126	$899	**$967**
Consumer credit outstanding (in billions)	**February**	$34.2	$44.7	$51.4	**$51.0**
Installment credit outstanding (in billions)	**February**	$25.2	$34.0	$39.4	**$39.4**
Wholesalers' inventories (seasonally adjusted, in billions)	**February**	$45.2	$49.1	$53.3	**$53.9**
Manufacturer's inventories (seasonally adjusted, in billions)	**February**	$10.6	$11.9	$12.7	**$12.8**
Retailers' inventories (seasonally adjusted, in billions)	**February**	$21.4	$24.1	$24.5	**$24.7**
Exports (in millions)	**February**	$1,290	$1,280	$1,562	**$1,576**
Retail sales (seasonally adjusted, in billions)	**February**	$14.5	$17.6	$18.1	**$18.1**

* *Preliminary, week ended April 2, 1960.*
‡ *Not available.*
r *Revised.*
§ *Date for 'Latest Week' on each series on request.*

THE PICTURES—Cover—Mike Shea; 26—(left) UPI, (right) WW; 27—(left and middle) WW, (right) UPI; 29—WW; 31—WW; 49—H. Grant Compton; 61 and 63—McGraw-Hill World News; 74, 75, 76, 80—Mike Shea; 89—Joe Nettis; 97—George Woodruff; 108—Schlmerich Carillons, Inc.; 119—Tipton and Kalmbach, Inc.; 122—Lockheed; 126—UPI; 140-141—Ron Appelbe; 155—Westinghouse; 162-163—John Coneen.





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There are some powerful reasons why more fleet buyers depend on Chevrolet than any other car.* No other low-priced car offers so many pluses that add up to dollar-saving dependability—like positive-shift starting for surer starts, hydraulic valve lifters that reduce maintenance, automatic choke for more economical warmups. Next time you're by your dealer's take a shrewd fleet buyer's look under the hood at Chevrolet's ever-faithful Hi-Thrift 6—and see all the extras you get at no extra cost:

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READERS REPORT

Rugged Drinkers

Dear Sir:

The Royal Canadian Mounted police must have used extremely rugged individuals in compiling the data determining, by specific weight, the number of drinks per hour necessary to get the imbiber tipsy enough to be considered a bad risk on the highway. I'm referring to the item in Personal Business [BW—Mar.12'60,p169].

According to the Uniform Vehicle Code, Model Chemical Test Law and the Northwestern University Traffic Institute — a blood alcohol concentration of 0.05 to 0.15 has indicated the driving ability of the drinker to be questionably or probably impaired. A reading of 0.15 proves him to be definitely impaired. . . .

We . . . feel it is misleading, however, to imply that a 200-pound man can consume 7½ martinis in an hour's time, before or after eating, without being considered tipsy by the fifth drink!

EARLE F. HEFFLEY
KEMPER INSURANCE
CHICAGO, ILL.

Facts in Question

Dear Sir:

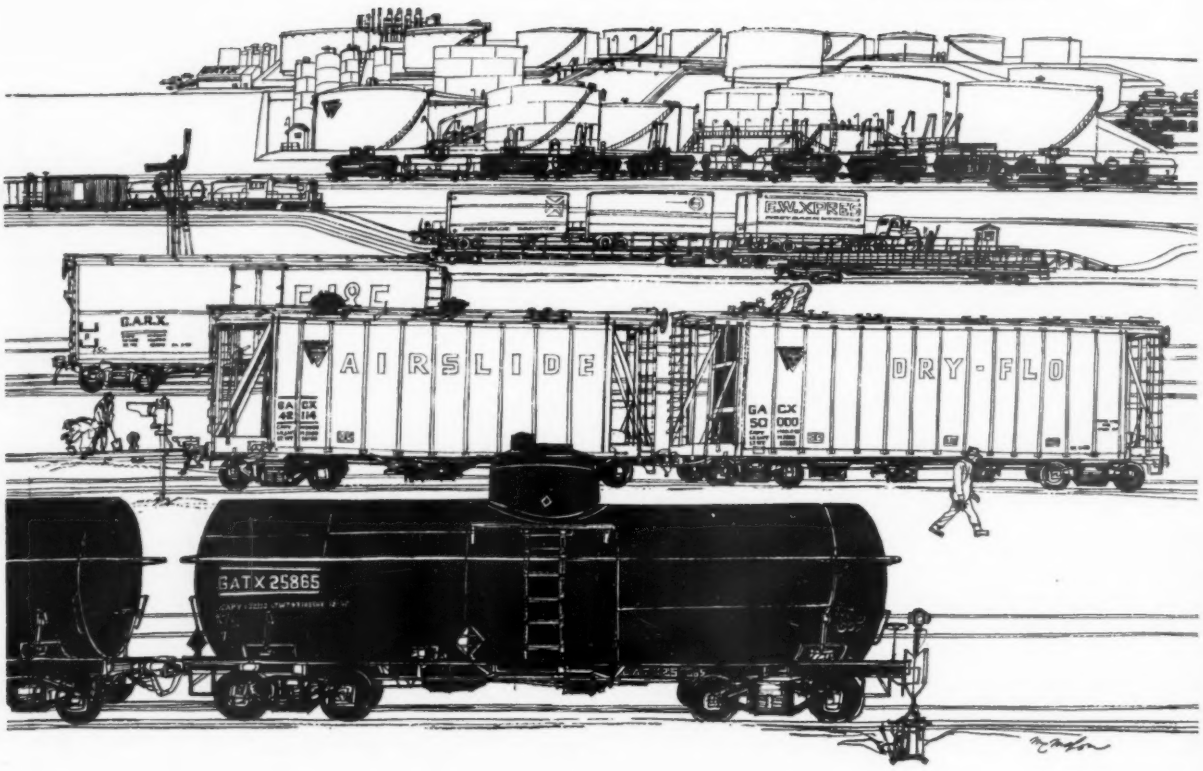
The issue of February 13 was of special interest to me as it contained an article about Maruzen Oil Co., one of the most important clients of this bank [BW—Feb.13 '60,p95]. I think the report is generally accurate but I found an error . . . on page 98 where it is stated that the largest block of shares is held by the Sumitomo Bank.

. . . My bank holds the largest block of shares while the Sumitomo Bank is in 15th position with 2.1-million shares or only 0.95% of the total.

Further, it is mentioned that "in 1958 Union arranged for Maruzen a $7-million long term loan through the Bank of America and Sumitomo." In 1958 no such loan was made. Last year Union did arrange a loan of $7-million to Maruzen guaranteed by my bank. The Bank of America did not participate and Sumitomo was only one of several Japanese banks that acted as subguarantors for the loan. . . .

TATSUO MURANO
MANAGING DIRECTOR & MANAGER
FOREIGN DEPT.
THE SANWA BANK LIMITED
OSAKA, JAPAN

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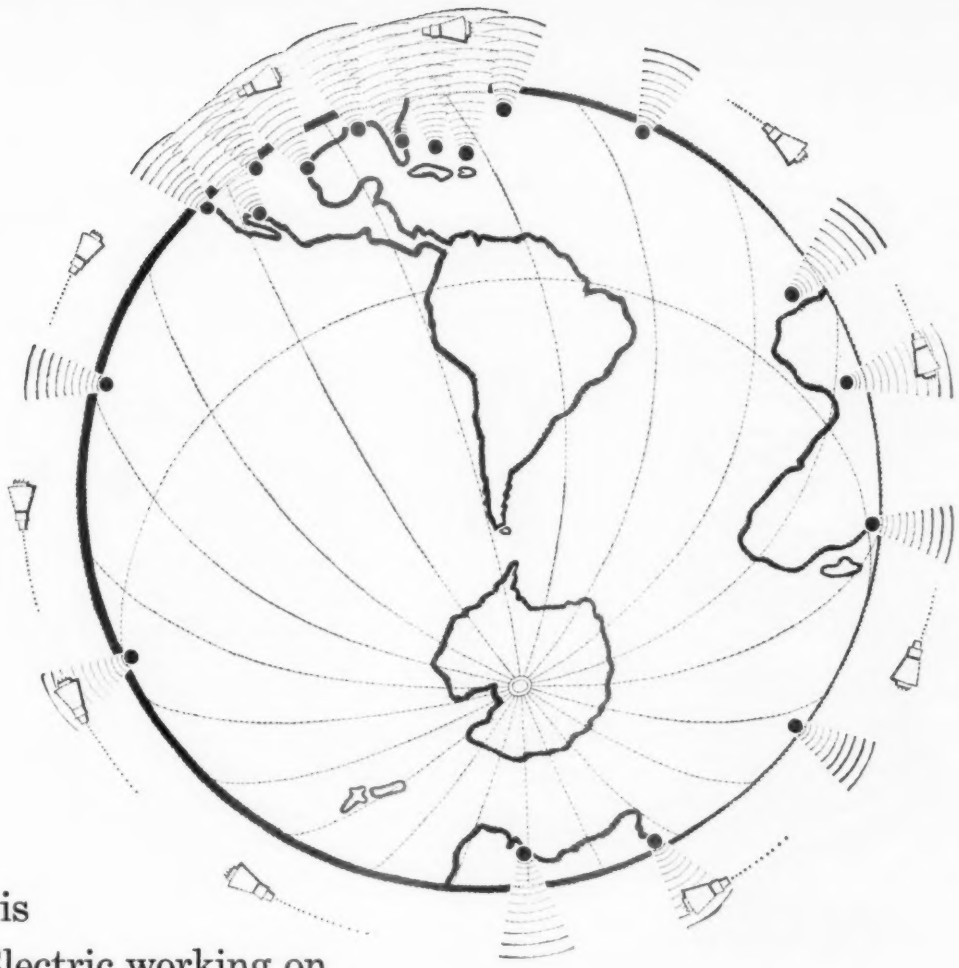
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GENERAL AMERICAN TRADE MARK



Q. Why is
Western Electric working on
"Project Mercury"—the astronaut in orbit program?

A. A vital element of Project Mercury will be the 18-station global communications, telemetry and tracking network which will maintain contact with the astronaut. Because this is basically a communications problem, Western Electric was selected by the National Aeronautics and Space Administration to lead the industrial team which is building this network. With management and technical talents proven on other defense communication projects, Western Electric was a logical choice for this assignment.

Western Electric

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Your family can't get far in part of a car

When a family loses father, it loses his salary too.

What part of their accustomed income would your family get? What part would your Social Security, insurance and other assets give them? Ask yourself, how will they adjust?

They cannot develop partial appetites, live in part of a house, buy half a pair of shoes, pay a fraction of a doctor bill, a semester of college.

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ROCKWELL EARNS 26% ANNUAL RETURN ON CARRIER AIR CONDITIONING INVESTMENT

Everyone knows that people in air conditioned buildings feel better and work better during hot weather. But do such benefits pay off in an industrial plant? Is it possible to figure how much air conditioning actually increases worker productivity?

The answer is an unqualified "yes," as many companies are learning from personal experience. One of them is Rockwell Manufacturing Company, leading producer of meters, valves and power tools.

When Rockwell installed Carrier air conditioning in six plants several years ago, its management was aware that a mere 1.5% increase in work productivity would cover the owning and operating costs. Actual results, however, exceeded the most optimistic hope. The increase in work output during summer months has boosted annual production 4.5%—or three times the increase required to make air conditioning pay off.

The profit return on their air conditioning investment has been even more spectacular. According to Rockwell records, air conditioning is earning a 26% annual dividend! And this does not take into account such difficult-to-measure but important benefits as improved morale, better workmanship, less turnover and absenteeism.

Significantly, these gains are not affected by geographical location or the nature of the products manufactured. Rockwell, for example, has Carrier air conditioned plants in Pennsylvania, Nebraska, Georgia, Kentucky, Mississippi and California which employ a wide variety of manufacturing techniques.

On the other hand, there is one important factor to consider in determining the profit potential of comfort air conditioning. This is the population density in a plant or plant area. Where the number of square feet per worker is low, the return on an air conditioning investment will be high.

There are other yardsticks, too—all of them described in the booklet, "Will factory air conditioning pay off for me?" which we will be glad to send to you without obligation. Write for it today so that you can make your own decision. Carrier Corporation, Syracuse, New York. In Canada: Carrier Engineering Ltd., Toronto.

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Lockheed's Georgia Division at Marietta covers 673 acres, including a main manufacturing and assembly building with 76 acres of floor space—world's largest aircraft plant under one roof! Current production includes the C-130 Hercules prop-jet cargo/personnel transport, the JetStar jet business transport and other aircraft. To help protect this important defense facility against fire, Lockheed has installed 1425 Pyrene-C-O-Two carbon dioxide extinguishers, 475 Pyrene-C-O-Two water extinguishers and three C-O-Two carbon dioxide extinguishing systems.

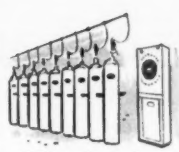
Pyrene-C-O-Two and C-O-Two Systems are two of nine famous brands of fire protection equipment offered by The Fyr-Fyter Company. All of Fyr-Fyter's 1200 products are available from Fyr-Fyter, Pyrene-C-O-Two and Buffalo industrial distributors. Look for their local listings in your Yellow Pages under "Fire Protection Equipment." Or write to The Fyr-Fyter Company, Dayton 1, Ohio.



LOCKHEED AIRCRAFT CORPORATION

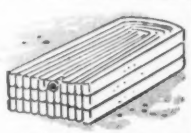


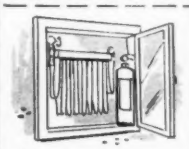

Fyr-Fyter, Pyrene-C-O-Two, Buffalo fire extinguishers


C-O-Two carbon dioxide, dry chemical, foam systems


Globe sprinkler systems


Fyr-Fyter fire alarm systems


Municipal, industrial fire hose

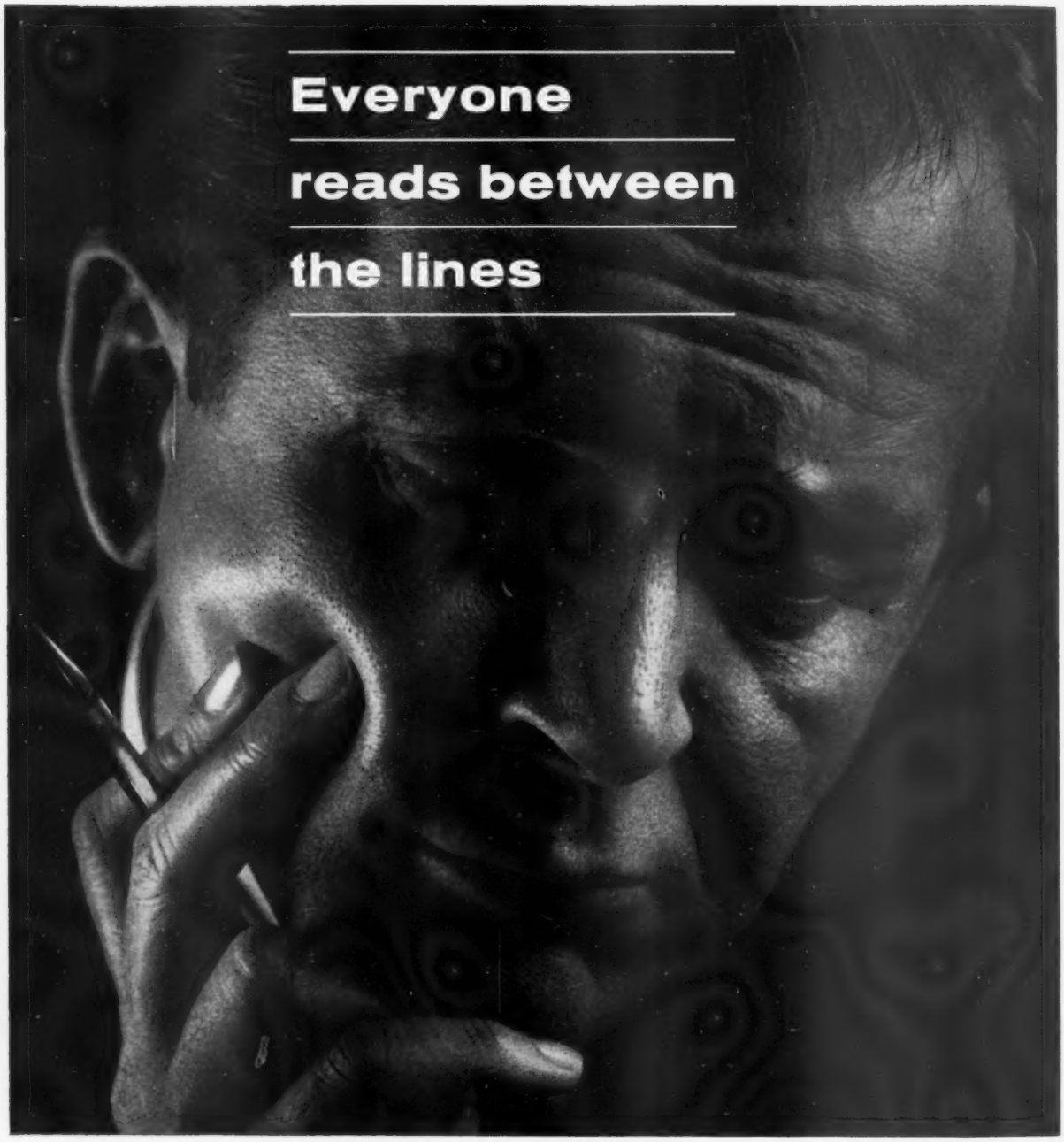

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Wooster brass fire equipment


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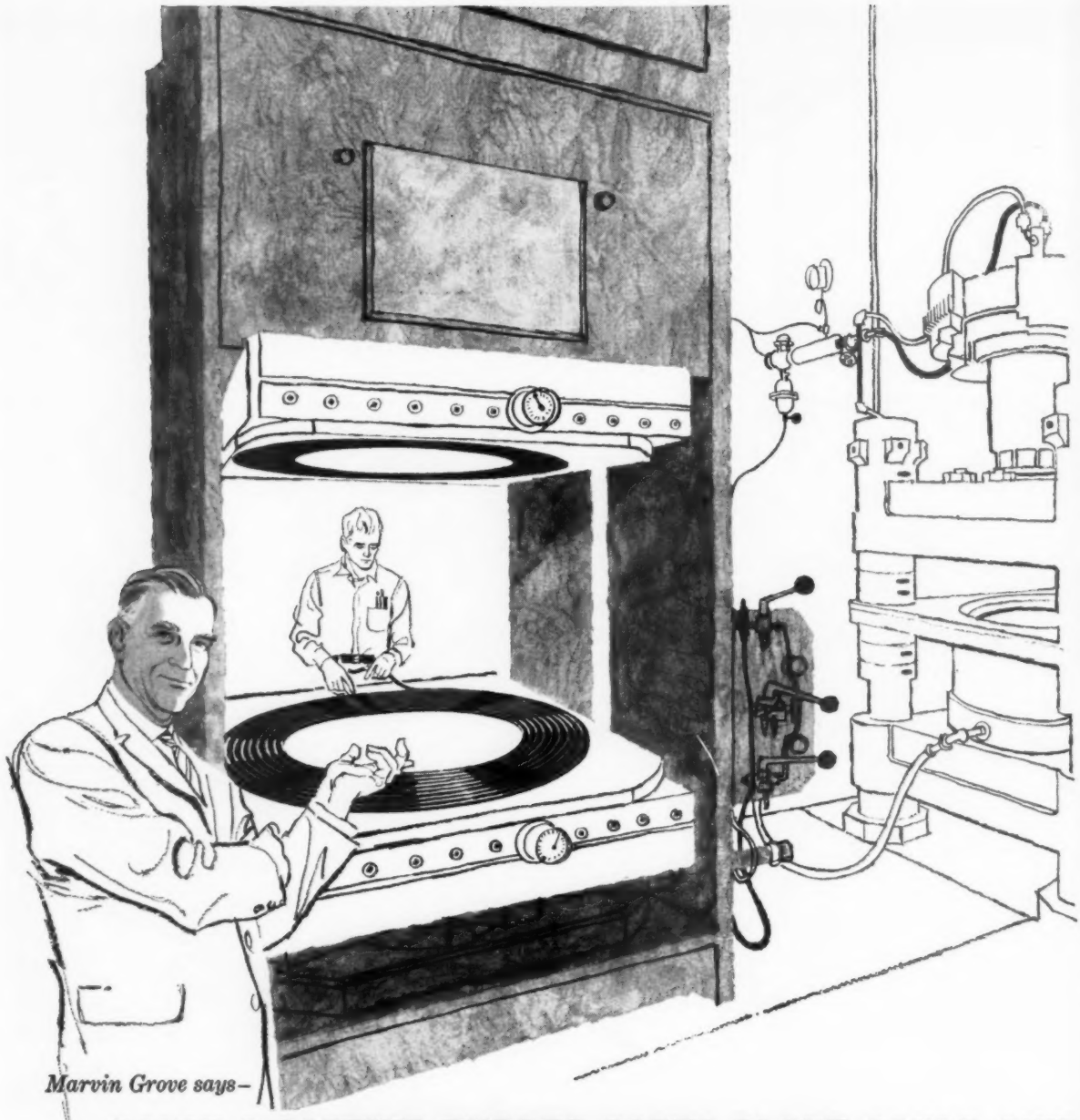
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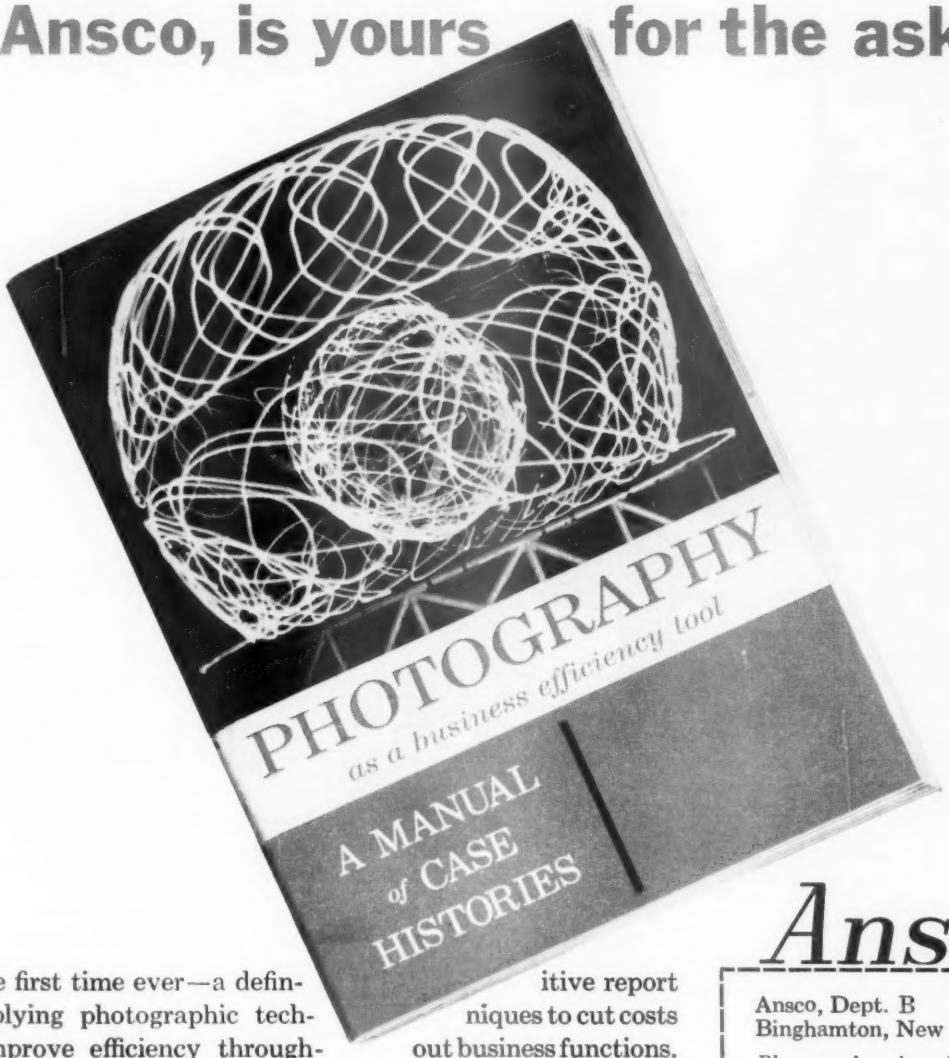
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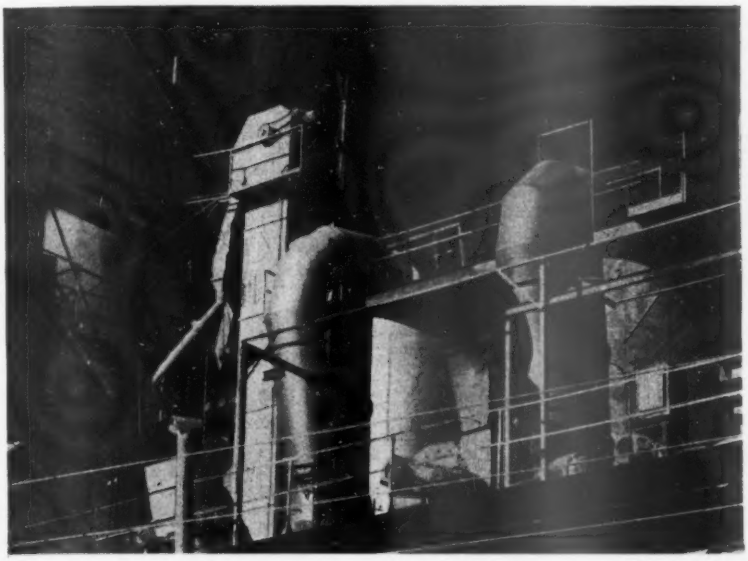
It will be a spectacle in the grand manner. (Nearly *twice* as big as the recent Russian show.) A vast number of British firms will show their newest, proudest wares. Executives of the exhibiting companies will be on hand to answer your questions—or talk business.

And the Exhibition will not lack its lighter side. You'll go sight-seeing in the London Arcade, see British films, quaff honest ale in a pub. The British like their fun.

Plan to come. You will find it an absorbing event and a profitable one.

SILICONE NEWS from Dow Corning

Found: A Paint that Lasts



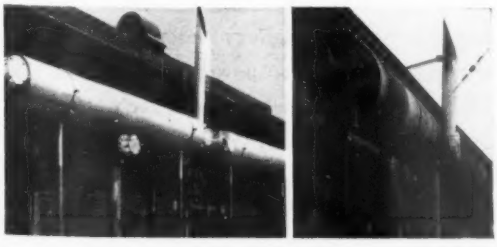
Cut Costs with New Long-Lived Silicone Finishes

You paint your plant to protect against rust and rot, but how can you protect the paint? Sun, rain, heat, sleet, smoke, and other elements of the industrial climate take a heavy toll. Shortly after the paint is completely dry, it starts to deteriorate. Soon, it must be re-applied. Thus, the cost of keeping away rust can run high; not due to the price of the coating material as much as to the repainting time involved.

Now, however, new paints based on silicone resins make it possible for you to make some really substantial cuts in paint maintenance costs. Proven to have superior durability, these silicone finishes last a good 25% to 100% longer. They keep their gloss and color and film integrity despite tough exposure to weather . . . despite high temperatures that burn or crack conventional finishes.

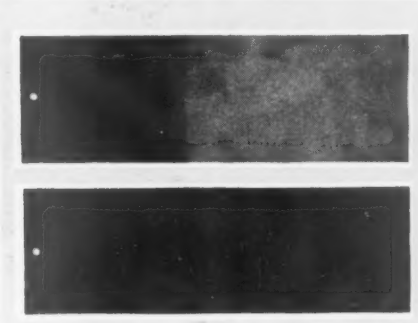
Naturally, this greater staying power means fewer repainting jobs. And that's especially important in hard-to-get-at areas of the plant, or on hot-running equipment that must be shut down for painting.

For instance, the Austin White Lime Company, of Austin, Texas, had difficulty keeping paint on the kilns and stacks shown above. Then they tried a paint based on Dow Corning Silicones, and report it ". . . by far the most satisfactory paint we have ever used." You can see the gleaming results.



Many other firms have come to the same conclusion. At left are two diesel mufflers at the Philadelphia Gas Works. Both were painted two years before these pictures were taken; one with an organic coating, the other with a silicone finish. The burned, cracked and discolored paint is the organic; the "like-new" coating is the silicone.

What if there's no heat problem, just weathering? New silicone-based coatings outlast conventional paints even where high temperatures are no problem. Look at the test panels in the photo. These panels have been exposed for one year in an industrial location where corrosive atmospheres frequently prevail. The conventional organic paint has faded, lost its gloss and chalked badly, while the silicone finish (bottom) is still in fine shape.



Colors Unlimited . . . Silicone finishes run the complete spectrum. If you want a hot-spot finish that will resist 1,000 F, certain pigments such as aluminum must be used.

But, when temperatures are not high enough to damage the pigment, you can get virtually any color you wish. This is important, for it means that, for the first time, you can carry color-coding systems over onto hot equipment without worrying about early paint failures.

Product finishes based on Dow Corning Silicones further prove the resistance to chalking, checking, fading and oxidation of these resins. For example: Sherer-Gillett, Marshall, Mich., a major producer of refrigerator display cases for supermarkets, has found a silicone-based enamel superior in durability . . . retaining high gloss after long wear . . . capable of absorbing more abuse.

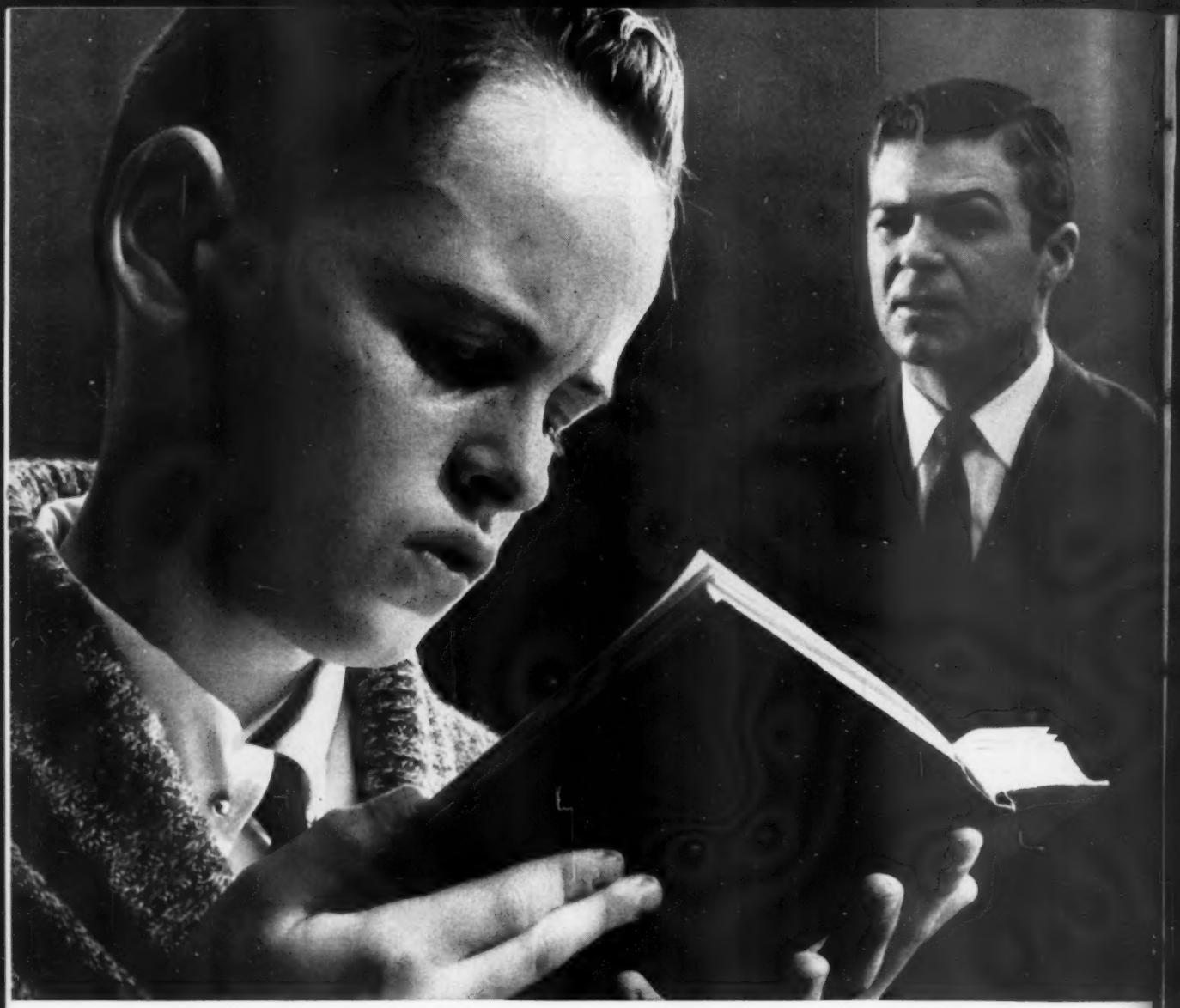
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BUSINESS OUTLOOK

BUSINESS WEEK

APRIL 9, 1960



More and more businessmen have been thinking they **could detect a whiff of spring in the air these last few days.**

Not that it will be much of an Easter in flooded areas of the Midwest. But more favorably located retailers are feeling the lift.

Clear-cut results on retail volume won't be in for several weeks.

With last year's Easter falling in March and this year's the middle of April, **the week-to-week changes are almost impossible to compare.**

And there are some **sizable year-to-year declines to be made up in the few remaining days**—when whim and weather make all the difference.

Yet **merchants in most areas seem stoically hopeful** (page 23).

The most encouraging sounds these last few days come from autos.

Mid-March stirrings in the market for new cars (BW—Apr.2'60,p19) seem to have been something of a harbinger. Now all the makers are reporting their dealers' business rising as the month ended.

With "contest" bonuses to spur them and floor stocks threatening to engulf them, **salesmen evidently got down to the job in hand.**

Taking the auto dealers' reports at full face value (and they aren't always exactly in line with registrations), **retail deliveries of U. S.-built cars last month apparently weren't far short of 570,000.**

Add on 50,000 or so for imports, and you get a 620,000 total.

That would top March of last year by nearly 125,000. In fact, **it would be the only month since 1955 ever to top 600,000**—and the best since early in 1956 for domestic cars (back when U. S.-built autos had almost the whole of the home market to themselves).

"Compacts" loom large in both production and sales, of course (BW—Apr.2'60,p25). Falcon and Comet are an important part of **Ford's** unit volume as are Valiant and Dart with **Chrysler.**

And **Rambler** had a gain of about 25% over a year ago in March.

But Chevrolet seems to have sold quite a few more standard models than last year. Of the 172,000 deliveries claimed, only 21,000 were Corvairs; that leaves 150,000 standards against 120,000 a year earlier.

And there's still room at the top. **Cadillac reports the best sales total ever** for March with just over 14,000 deliveries, while the 41,000 sold during the first quarter also was a new record.

—•—

Consumers had no great need to borrow on autos late in 1959 and early this year because car sales were not too brisk. In fact, **the outstanding auto paper total changed hardly at all,** October through February.

That does not mean the total wasn't a big one, of course. Nor does it mean that all car buyers paid cash; rather, the new loans made for car buying were fully offset by repayments on old paper.

New borrowings in February, in fact, were if anything a little larger than might be expected for the time of year.

Installment debt on autos had gone up quite rapidly during the middle months of 1959. For the year as a whole, there was a rise of about $2¼-billion in the total outstanding.

This carried total debt for purchase of autos (used cars as well as new) about $1-billion above the old peak set in the autumn of 1957.

Coming up to the period of "big sales" (they have to be big if the economy is to stay large), **auto debt stood at a record $16.7-billion.**

Late in 1955 and early in 1956—when cars were selling as they never have before or since—installment debt was $3-billion less than now.

In other words, **the time-payment load has risen nearly 25%.**

But, in the same interval, the consumer's **after-tax income has risen better than 30%**—from $260-billion to $340-billion.

Consumers have, of course, found new and interesting ways of increasing their monthly payments since 1955-56. That is to say, **auto debt isn't so big a part of all installment credit now as it was then.**

Auto debt today is 42% of the total; four years ago, it was 47%.

Thus, even though incomes have outpaced the rise in auto debt, the improvement isn't so marked relative to time-payments over all.

How much that affects auto sales, nobody can be quite sure.

—•—

Construction has still to feel the beneficial touch of spring.

Heavy **contract awards** during March—a measure of future activity—showed no particular fever, running a bit behind last year. And the value of **work put in place** also was below year-earlier levels.

Contracts for **highways and bridges** ran ahead of a year ago during March, according to McGraw-Hill's Engineering News-Record. But **other public works** fell fairly sharply, dragging the total down by 4%.

In the private sector, only a good gain for **commercial buildings** prevented worse than a 2% drop. **Industrial contracts,** showing up well until recently, fell very sharply from a year ago during March.

Official figures on the **value of work put in place** show each month so far in 1960 running somewhat behind last year's level. The gap, in fact, showed signs of widening in March.

Actually, the value of work done in February and March probably is overstated in the government figures. The estimates are arrived at by means of a formula which doesn't allow for such variables as weather.

And everyone knows what February-March weather did to outdoor work.

Housing, whose slide has yet to be arrested, seems in line for some help from Washington. FHA is considering a plan to reduce the required down payments on medium and higher-priced houses.

The effect of such a move, authorized by Congress a year ago, would be noticed particularly in the $13,500 to $18,000 bracket.

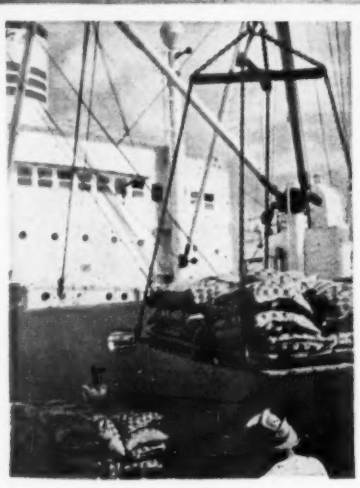
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Two young Trinidadians get a start in the chick raising business. Photo by Fritz Henle.



Profits in the bag in Port of Spain

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BUSINESS WEEK

APRIL 9, 1960

NUMBER 1597

Blame It on the Weatherman!

● **That's what retailers across the nation were saying to explain disappointing sales in the first quarter.**

● **A return of sunny, mild weather gets credit for a pickup last week in car and apparel sales.**

● **And despite a poor start, most merchants think 1960 will be as good as 1959, perhaps a bit better.**

"There's nothing wrong that three weeks of good weather won't cure."

This word from one retailer sums up retailers' thinking just about everywhere last week.

You've heard about weather as the guilty party in a sales slowdown before. This time, retailers have something to kick about. The maps on the following pages tell the story. "We've never given weather as an alibi before," comments one merchant. "This time, we have to."

Weather, on the other hand, gets the kudos for the sudden glow of optimism that hit most places in the last week or 10 days. As the sun began to shine and the temperature to rise, almost everyone noted a sharp pickup in sales. That goes especially for car dealers and department and apparel stores. Other hardgoods, which held up better than fashion in the early spring, don't gain much from the Easter buying splurge.

• **Bullish Attitude**—In Louisville, merchants are downright buoyant. Some stores there are talking of the "biggest Easter ever." Bad weather kept demand pent up; sunny days released it, they say. Some Pittsburghers feel the same way. "We're bullish," says one department store. "We can't miss now." New Yorkers say it more cautiously. "If we get some decent weather, we'll make up what we lost," says one big store official. "If it turns cold again, we've had it."

Most agree that April—with Easter—will tell the story. "Right now," says a Boston department store, "we are 20% behind the Easter season last year. Being this far behind can mean the difference between being in the red or black for the whole year. If we don't recoup, we will have a serious problem. Our orders will have to be cut back because of a deficit position. If the weather cooperates, I think we'll wind up Easter very well." By very well, he—and many others—means even with, or a little better than, last year.

Some of the optimism wears a chin-out, we've-got-to-do-better expression. You can detect some edginess and a good deal of "cautious" optimism for the outcome of 1960 as a whole. While some stores are plain bullish, others, like a Kansas City merchant, describes his attitude as "watchful waiting." A Nashville executive feels, "The economy simply isn't as it should be." Says a Toledo merchant, "People are holding on to their money." A New York discounter thinks, "Something on the grapevine—we don't know what—tells a consumer, 'Slow down, don't buy.'"

• **Special Situations**—Some cities have special problems. A Negro boycott has Nashville worried; Houston, too, is anxious on this score. Kansas City had local strikes. Flu epidemics, piled on top of bad weather, has harmed some areas.

This week, Omaha, which had been blasted by 56 in. of snow and was counting heavily on an Easter pickup to recoup its losses, got another staggering blow. Floods of the Missouri tributaries have literally washed out the important rural market in its area. Now, retailers say, we really have had it.

Still, the dominant note is one of faith in the strength of the economy. Against a generally disappointing first quarter, predictions for the year still hold at least even with 1959, probably a bit better.

I. Department Stores

Some of the giants talk most cheerfully. Macy's-New York says—without amplifying—"We had our best year last year, and this year we are doing even better." Most foresee moderate gains, though estimates frequently have been pared, to perhaps 3% to 5%. A few are making guesses that go as high as 10%.

Not all lines suffered alike. The late Easter and cold weather cut into fashion sales. Explains an Omaha executive, "Even my wife hasn't bothered to shop for her spring wardrobe yet." Some stores are thanking their stars that Easter comes late; there's still time for women to go out and buy their spring finery. Home furnishings get many mentions for good performance. They seem to have done more than their share to prevent a gloomier first-quarter record.

• **Welcome Reversal**—The few good recent days have reversed the picture drastically. Apparel and department stores talk happily of big days last week. "Fantastic," glows a Louisville retailer. Baltimore, which had been dragging at the bottom of the Federal Reserve Board list, had an "exceedingly good" pickup in ready-to-wear when the weather relented.

High inventories—and most have them—aren't worrying big stores yet. The spring peak—hopefully—lies just ahead. Few stores have reached the point of heavy promotions or markdowns, though some think the day will soon come. "There's danger," one executive comments, "that wholesalers and retailers will panic. Then you get big markdowns when maybe you don't really need them."

II. Cars

The key car market presents a diversified picture. Dealers in most cities found the first months slow. With good weather, and the compacts on the march, the picture has changed markedly in the past week or so.

Car sales in Milwaukee are running anywhere from 10% ahead to double a year ago. Baltimore sales for the first two months were up 9%. Omaha, after a frightening early March, says it has more business than it can handle. Jacksonville, Fla., tells a similar story. Houston is running ahead, either on target or better. Kansas City finds cars

especially strong; gains of from 15% to 60% were reported for each of the first three months. Louisville, 20% ahead in new cars for the first two months, sings of "flocks of buyers." Nashville had increases of from 15% to 30% for the first quarter.

• **Varied Picture**—Not all are that glowing. In New York, the picture varies from dealer to dealer. Boston finds "tremendous interest," but so far no tremendous sales. Pittsburgh is running about the same as a year ago. Toledo, with a very slow start, is still hoping for the pickup some cities have felt.

The compacts are thriving. "The Falcon has been a lifesaver," says a Ford dealer. A Studebaker dealer says most of his sales are Larks. A Milwaukee Dodge man says 85% of his sales are in Darts—he's in short supply of them. A Chevy dealer finds 25% of sales are Corvairs, talks of "one of our best years." In Pittsburgh, compacts account for from 35% to 50% of sales. A New York Olds agent finds business way off—and lays it to the lack of a compact model. The one really jubilant New York dealer (Chrysler) says both Valiant and Plymouth are big, and tied for second place; Imperials are even better.

• **Buyer Confusion?**—Compact cars have their bad points, though. There's less money in them. Several dealers report they have cut deep into the regular car sales. A Ford dealer says Fairlanes are way off, while Falcons and Thunderbirds are moving. Several, too, felt used cars had been hurt by the compacts. In fact, used cars were, and in some cases still are, a worry. But they too have begun to pick up. Some feel compacts have had another bad effect: So much choice, all of a sudden, has confused buyers.

Everyone is discounting car prices. Many feel price weighs heavily in the compacts' favor. On the other hand, several report people are buying all the frills. The plain, unadorned models are just sitting.

Most insist they aren't overstocked, though quite a few admit they have more than plenty. One comments he would feel more optimistic about the year if he could reduce his used-car stocks.

An Olds-Rambler man, who reports that the Rambler has held up well against the new compact competition, sums up the majority attitude this way: "My attitude is that this is going to be a damned good year."

III. Appliances

Appliances are having their ups and downs. Business ranges from very good to "lousy." Detroit, for one, reports gains of from 15% to 20%. But even though some cities report good gains, the gains are mainly still below expectations. The few who are way ahead got there by dint of heavy promotion.

There's little agreement on what is selling. Refrigerators seem to be slow most places. Air conditioners are beginning to move. On washers and driers, reports vary all over the lot, from best sellers to "no sale." TV—especially portables and second sets—is doing quite well. Some say stereo is terrific. Some report it's way off. The picture is rough, comments a dealer of suburban New York. Back door outlets and builder sales are hurting.

A few, reluctantly, are stocking heavily. "We have to because the distributor isn't stocking," one man says. But another is playing it very close. "I don't trust this market from one day to the next," he says.

• **Dealer Disappointment**—Carroll McMullin, Toledo dealer, thinks "too many businessmen were brainwashed" into believing 1960 was going to be the greatest in history. Now they have doubts. Another appliance dealer thinks early rosy forecasts made dealers feel they could sit and watch the dollars roll in. "The sizzling '60s have been a fizzle for us," says a disappointed small dealer.

Most discount houses are only moderately happy. The biggest gain discovered in Milwaukee was only 2%. In Baltimore, one discounter is 10% ahead—but he had hoped for a 25% increase. One New York house calls its sales

The Crazy 1960 Weather:

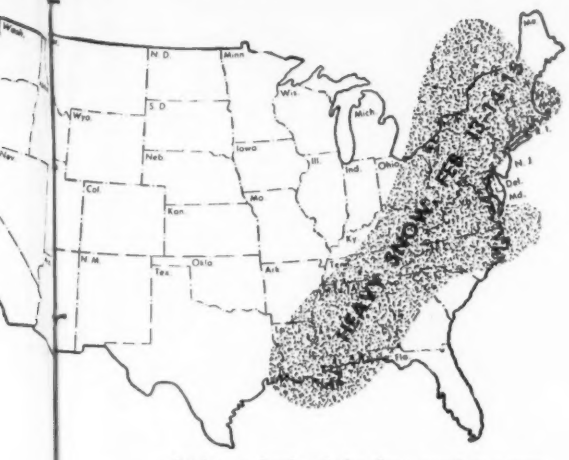


1 First mid-February snowstorm started in Rocky Mountains, moved east, dropping as much as 18 in. of snow in Wisconsin and leaving below-zero temperatures in its wake.



4 New England felt brunt of Winter's nastiest, coldest week, as snow, freezing rain, sleet hit most of East. Massachusetts areas got record snows, whipped into 10-ft. drifts.

Five snowstorms battered the country...



2 Right on heels of the first, another storm grew in the Gulf, moved northeastward into New England. Southern states had snowfalls of more than a foot.



3 While Arctic air covered Plains, and temperatures hit 20 below in Dakotas, a storm from Texas-Louisiana moved northeast, dumping 22 in. on West Virginia, New York.

...then made a flood



5 As cold air persisted, pushing temperatures below freezing as far south as Arizona and Florida, the last big snowstorm hit. Torrential rain flooded parts of Florida.



6 Rapid currents of warm air ended record March cold in most states east of Rockies. But warmth melted snow blanket flooding the Missouri and upper Mississippi Valleys.

satisfactory, but wouldn't say it was beating 1959. Another in the area sees no pickup yet.

Yet, even among discounters, the pickup will come, most insist.

Opinions differ as to whether cash or credit is the favorite currency. Most feel the year has brought little change. Credit sales are still increasing, and "that's all right with us," says a New York department store. A Louisville appliance dealer feels consumers have less cash than before. They want longer terms and smaller downpayments, he says. An Omaha dealer, who is going after the credit business, hopes to pick up slack sales by the "same approach as the others are using—no downpayment, 36 months to pay." Yet a Toledo dealer contradicts this flatly. Most of the business is for cash these days, especially in the smaller appliances, he says. He feels people have money in their pockets if merchants can just get it out of them. And a car dealer was startled at the excellent response he got from a promotion for cash sales of cars.

IV. The Market

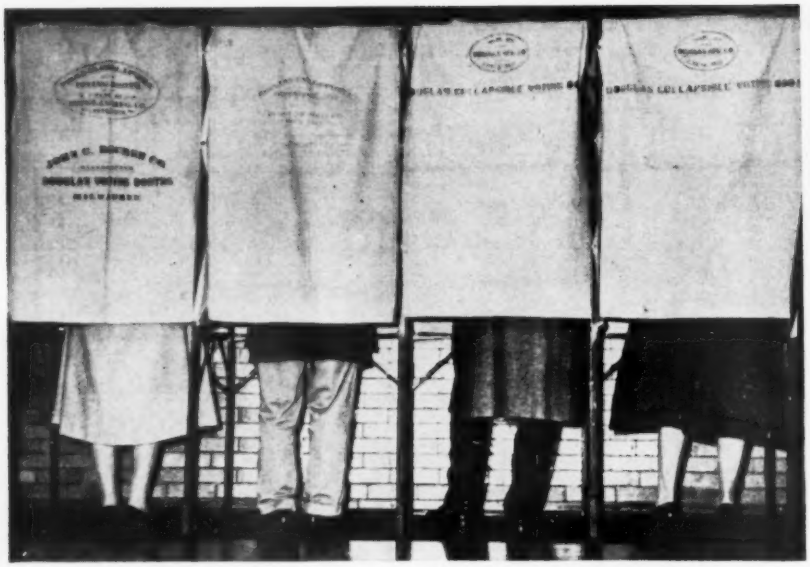
Almost to a man, retailers find little price resistance, provided—and it's an underscored proviso—the quality is there. Consumers want both quality and price. But if they can't get both in one product, they lean toward quality.

• **First Consideration**—"It doesn't matter so much whether things are marked down," comments an executive of a low-markup store. "If they see something they like better that isn't marked down, they'll take that instead."

An appliance dealer notes real strength in some of the higher-priced lines. "A difference of $50 cuts no ice," he reports.

Significantly, discount houses are upgrading. One thinks the reason they are doing well is because they are buying better, getting better quality. Another adds, "Right now we are analyzing every department—with a view to upgrading our lines."

"They look at the top or the bottom," says a Houston man. "The middle group is gone."



WISCONSIN voters gave Sen. John Kennedy big edge but left race open . . .



KENNEDY needs another sizable victory to "sell" him to Democratic pros—and avoid a "stop-Kennedy" movement.

Kennedy's Hopes Hang on West V

The 1960 Presidential election season got off to a roaring start with this week's primary in Wisconsin, but the outcome was peculiarly disappointing to all the principals and raised more substantial questions than it answered.

One clear result: It laid the groundwork for a "stop-Kennedy" movement within the Democratic Party.

Massachusetts Sen. John F. Kennedy, the victor in Wisconsin, failed to get out of the state with the one thing he most needed and wanted—a triumph of such proportion that it would ease, once and for all, doubts still held by some Democratic professionals about the wisdom of nominating a Roman Catholic for the Presidency.

• **More Harm Than Good?**—Kennedy does get a psychological lift out of his 100,000-plus margin over Sen. Hubert H. Humphrey, his lone Democratic challenger in Wisconsin, and his 130,000-plus margin over Vice-Pres. Richard M. Nixon, the Republican nominee-apparent. Nixon had no opposition on the GOP side of the ballot, and his real strength suffered painful distortion on the low side as a result.

A substantial body of expert opinion seriously holds the view that Kennedy's victory actually does him more damage than good. This is because the Wisconsin vote forced into the open the "religious issue." Most analysts came quickly to the conclusion that Kennedy owed virtually his entire margin of victory to bloc voting by Catholics. Many of them were conservative Republicans who apparently took advantage of a Wisconsin quirk of law to cross over and vote for Kennedy in the Democratic primary.

According to this viewpoint, the net effect is at least to hang a question mark on the primary's outcome.

• **Another Victory Needed**—In any event, even before the last of the Wisconsin ballots had been counted, most politicians and impartial observers were agreeing that Kennedy did not reach the "unbeatable" stage in his campaign for the nomination and that he needs at least one more big popular victory.

Now attention swings to West Virginia, where Kennedy gets the chance for that one more victory. The primary will be a showdown with Humphrey. The two Democratic rivals had, for the past three months, waged in Wisconsin the most intensive—and, probably, the most expensive—campaign ever conducted in U.S. political history in a single state's primary.

What Wisconsin has just finished getting, West Virginia now faces until its primary election is held May 10.

• **Focus on Humphrey**—For practical purposes, Humphrey was eliminated in Wisconsin from further serious consideration as a Presidential aspirant—a status that only a few had been willing to assign him, anyway. But his showing was strong enough to keep him "alive" to battle Kennedy in West Virginia and to raise some questions about the true worth—in hard political terms—of Kennedy's victory.

No matter whether he relishes the role, the Minnesota senator inevitably becomes the central public figure in, and the prime beneficiary of, the gathering "stop-Kennedy" movement. This campaign will be engineered by the backers of such Democratic hopefuls as Sens. Lyndon B. Johnson of Texas and Stuart Symington of Missouri and the twice-beaten Adlai E. Stevenson.

• **Record Vote**—The Wisconsin turnout, well over 1.1-million voters on a benevolent spring day, set a new primary record for the state. It underscored a fact that first became apparent in the uncontested New Hampshire primary last month—public interest in Presidential politics is high in 1960.

Apart from the election law that permits crossover voting without regard to party affiliation, Wisconsin has one other peculiarity that would receive no attention were Kennedy not in the race. That, of course, is the heavy Catholic population—about 32% against a national average of 23%.

Statistically, Kennedy won in six of Wisconsin's 10 Congressional districts and will take 20½ delegate votes with him to the Los Angeles nominating convention. This performance was approximately the minimum that he and his advisers had calculated in advance could be called satisfactory. Humphrey received 10½ delegate votes for winning in four districts.

• **Farm Victory**—Particularly noteworthy was the heavy Kennedy vote from areas that normally vote Republican and where the Catholic population is high. This pattern was especially evident in the 6th and 8th Congressional Districts, on the eastern boundary, in territory that Wisconsin



HUMPHREY, beaten but willing to fight again, will draw anti-Kennedy support in West Virginia primary May 10.



NIXON ran last in Wisconsin test, but GOP didn't campaign. Catholic Republicans crossed line to vote for Kennedy.



JOHNSON, still an unannounced candidate, will probably get West Virginia's votes whatever the outcome of its primary.

Virginia Rematch

natives often describe as the "stomping grounds" of the late Sen. Joseph R. McCarthy.

Perhaps Kennedy's most significant victory was in the 7th District, in central Wisconsin. It has a smaller Catholic population and, moveover, is largely rural—a part of the dairy country. Kennedy won it, answering—at least to the satisfaction of his partisans—one of the nagging questions: Can an Easterner and a Catholic run well over such political terrain?

• **Change in Tactics**—Humphrey, as late as three weeks ago, had faced the threat of an entirely humiliating defeat. Some had estimated he might win as few as three of the 31 delegates at stake. Then he changed his campaign tactic, to hit hard on the theme of "rich man (Kennedy) vs. poor man (Humphrey)" and to lay out in detail past political differences with Kennedy on such issues as farm and dairy price supports and tax policy.

Kennedy chose not to take on Humphrey in a battle on the issues. Rather, he maintained his chosen pace and portrayed himself and Humphrey as together on the large issues, especially in the last couple of years.

One of the pleasant surprises in the Humphrey camp was victory in the 2nd District, which includes the city of Madison, the University of Wisconsin, and a good mixture of agriculture and small industrial cities and towns. The 2nd is also, incidentally, the reservoir for substantial pro-Stevenson sentiment in Wisconsin.

• **Misleading to GOP**—By running third, Nixon and the Republicans suffered a phychological jolt. The Vice-President did not campaign in the state, however, and until the closing days of the campaign the GOP made only nominal efforts to attract its own voters to support Nixon.

Nixon got something under 30% of the total vote. In a state that the Republicans won with 62% of the vote in the last Presidential election, this obviously is no realistic measure of actual strength. What it mainly illustrates, most observers agree, is the degree to which Republicans crossed over to help the Democrats, primarily to help Kennedy.

• **Crucial State**—In the new context, West Virginia becomes the "make or break" state for Kennedy. His candidacy is still so fragile, most observers feel, that only one defeat between now and the July convention would wreck it.

West Virginia and Wisconsin offer sharp contrasts in several important respects. West Virginia is plagued by pockets of high, lingering unemployment. The state does not have the same economic bounce as Wisconsin.

Kennedy is already being told by some of his advisers that he must shift gears, hitting harder on the bread-and-butter economic issues in West Virginia than he did in Wisconsin.

• **Fewer Catholics**—There are other differences. One potentially important one is that West Virginia's Catholic population, estimated at 3% to 5%, is among the nation's lowest. The question is inevitable: Will Protestants in large numbers vote against him because of his religion? (There was no answer to this one in Wisconsin, but the general feeling is that Protestants did not rally to Humphrey in the same proportions that Catholics did to Kennedy.)

The political situation in West Virginia is different, too. For one thing, only Democrats will vote in the Democratic primary. Even more significant is the widespread impression that, no matter whether Kennedy or Humphrey wins the popular vote on May 10, most of the state's 24 delegate votes will be for Lyndon Johnson. The primary result is advisory only, not binding on delegates.

• **Stopping Kennedy**—What will be watched for, and what seems predictable with fair certainty, is financial and other support for Humphrey in West Virginia from Johnson, Symington, and Stevenson supporters. Their prime interest is to cut down the front-running Kennedy lest he foreclose the nomination ahead of the convention.

There were some late signs of a "stop-Kennedy" effort even in Wisconsin. Reports of some "Johnson money"—meaning from Johnson supporters in the Midwest, principally Chicago—in the Humphrey campaign persisted without verification. But Symington boosters at the end were publicly plumping for Humphrey.

Some West Virginia politicians think that, if the state voted now, Kennedy would win. They are by no means certain that prospect cannot or will not change. Organized labor, and especially the United Mine Workers, might provide the swing votes. The miners like Humphrey, and some of the union's officials are already working for him. But labor's course in the state is not clear.

Easier Money Signs Get Clearer

● **Treasury's ability to sell long-term bond is sign both of money switch and closer partnership with Fed.**

● **But so far, easier credit situation is confined to money markets; banks still charge "tight money" rates.**

● **Fed is easing up on money supply but is unlikely to move strongly either way until economic outlook clears.**

The switch toward easier money was clearly evident this week.

It enabled the U.S. Treasury to sell a new long-term bond with a yield of 4¼%, the legal maximum, as part of a $2.5-billion cash financing. All during 1959, the Treasury was completely shut out of the long-term market because outstanding interest rates were well above the legal ceiling. But the Federal Reserve's relaxation of its tight money policy, and the money market's expectations of genuinely easy credit, have resulted in a swift bidding up of bond prices and a knocking down of yields.

The Treasury's move was designed, in part, to stop the steep decline in rates. Treasury officials tailored the issue to avoid attracting funds that might go into residential mortgages. At the same time, they hoped to absorb money that might have been used speculatively. Moreover, by increasing the supply of long-terms, the Treasury dampened demand.

• **Partnership**—In coming out with a long-term bond, the Treasury is moving into closer operating partnership with the Federal Reserve. For, up to now, major reliance for fighting inflation and for stabilizing the economy has been placed on the Fed, with the Treasury usually adding to the inflationary pressure by selling short-term obligations and running a budget deficit. Now, the Treasury has a prospective surplus budget and is borrowing long; and this allows the Fed to relax somewhat.

The Fed's new policy of "passive ease," however, is not based only on aid from the Treasury. Officials cite other factors—the slowing down of loan demand and of economic activity, the sea change in business psychology.

The Treasury was quick to take advantage of the opportunity this gave it. It offered investors a 25-year bond callable in 15 years, making it, in effect, a 15-year bond. Democrats on Congress' Joint Economic Committee had recommended a call provision, but Treasury spokesmen denied this was the reason. Rather, they explained, the 15-year call feature was a compromise between the wishes of investors who wanted to assure themselves of a 4¼% return for as long as possible and the Treasury's own desire to keep itself in a position to take advantage of lower rates that might be available in the future.

• **Estimate of Results**—At midweek, the results of the offering were not available. But government bond dealers estimated that between $500-million and $600-million of the bonds had been sold. This was about what the Treasury had expected. Government bond dealers estimated that about $400-million of the subscriptions were taken by bona-fide long-term investors—mostly pension funds and foundations—who are expected to salt them away. The remainder is in the hands of dealers who undoubtedly hope that traders will bid them up to a premium.

Although Treasury spokesmen described the offering of a long-term obligation as a probing experiment, there is no doubt they would have been forced into the short-term market except for the cooperation of the Fed.

• **Limited**—So far, at least, the easier credit situation has not extended beyond the money markets. Thus, the chief beneficiary is the nation's biggest borrower—the U.S. Treasury. For it has been selling its short-term obligations at almost two points below the peaks reached at yearend, and was able to follow this up with its new long-term bond.

Other borrowers, mainly big corporations who offer short-term debt in the commercial paper market, have also been able to get funds at reduced rates. There has been a lowering of rates in the long-term capital market, too, although this is as much due to a slackening of demand as to an increase in investable funds.

But the banks are still charging borrowers "tight money" rates. Business borrowers at New York City banks paid an average of 5.11% for their loans during the first half of March. This is only slightly less than the 5.14% average in the first half of last December—as against the big decline in money market rates.

• **Banks' Position**—The Fed's shift in policy has affected bank reserves, however. Net borrowed reserves—the difference between member banks' excess reserves and the amount they borrowed from the Fed—have declined from an extremely restrictive level of $350-million to $450-million down to an average of $250-million. Indications are that the Fed plans to hold close to this level until the economic outlook—and the probable extent of credit demand—becomes clearer.

Bankers say that demand for loans is still fairly strong, and they see no reason to lower their lending rates yet. They would prefer the Fed to reduce its discount rate, now at 4%, as a signal of a permanent switch away from tight money.

• **And Fed's**—But Fed officials are not planning such a dramatic easing move—at least not for the next few weeks. The money managers will supply the funds to accommodate the Treasury during its financing operations. And the chances are the Fed will not sop up all the reserves it makes available, thus allowing for some expansion of the money supply.

This is not likely to be followed by a discount rate reduction, though, unless the economy clearly warrants it. Fed officials admit that inflationary psychology has disappeared and that business is hardly booming. But they are not convinced this means a recession ahead. Instead, they talk in terms of "high level stagnation," suggesting that industrial production will stay fairly constant.

This kind of picture would allow for some expansion of the money supply, and perhaps a further decline in interest rates—but more likely in the discount rate and the banks' prime rate than in money market rates.

That's because money market rates are already discounting more ease than the Fed has yet provided.

• **Prospects**—Though the Fed is in a position to move either way, it would take a big upsurge in the economy to make it tighten. The prospect is that it will mark time with its new "passive ease" during April. If business does not show an improvement, then the Fed may well consider a further—and perhaps overt—move toward ease.

There's another reason why a return to tightness is improbable even with a pickup in business: The Treasury is likely to press its own anti-inflationary program by reopening its new 4¼% issue.

In effect, the Treasury's effectiveness in pursuing an anti-inflationary policy allows the Fed to relax its own guard a little. Any further relaxation in the Fed's policy depends on the course that business—and borrowing—takes.



NEGROES jeer at passing police in Orlando, near Johannesburg, as racial conflict brings South Africa to state of emergency.

South Africa: Showdown Comes

If tensions can be controlled, there's some hope more moderate government policies will evolve.

A U.S. official who deals with South Africa compares the outburst of racial strife there to a heart attack.

"It could prove fatal," he says. "On the other hand, if the immediate situation can be brought under control, the attack could serve as a warning and thus give South African whites a longer lease on life than they would have had otherwise."

To meet the crisis, Prime Minister Verwoerd has cracked down sharply since the shooting of 72 Negroes at Sharpeville Mar. 21. He has outlawed both major African organizations, jailed some 200 Negro leaders and white sympathizers, and declared a state of emergency in the Union.

• **Protest and Sympathy**—Reaction has been a series of clashes, protest marches, and continued work stoppage inside South Africa. From abroad has come a world response sympathizing with the Negroes, railing against South Africa's apartheid policies.

The Negroes won but one important concession during the strife and that has already disappeared. The pass laws, which set up an internal passport system for blacks and gave the government tight control over their movements, were suspended briefly. At midweek, Justice Minister Erasmus declared that the government is reintroducing the pass system.

This has probably dashed whatever immediate hopes the Negroes had that their protests would begin to knock down political and economic barriers against them. But the Negroes' outburst has awakened some elements of South African white society to their plight —and their power—and may lead to moderation of the apartheid policy.

• **Stakes for U.S.**—Whether or not Verwoerd—or a possible coalition with moderates—begins to substitute reform for repression, the U.S. has a heavy stake in the future of the Union, both economically and politically. American private investment there probably totals close to half a billion dollars (some estimates are even higher), accounting for at least half of total U.S. private investment in all Africa.

U.S. interests are involved in almost every facet of the South African economy. Kennecott, Newmont Mining, American Metal Climax have large nonferrous mining holdings—particularly of gold, copper, and chrome. Ford, General Motors, and Chrysler operate substantial assembly plants. Firestone, General Tire, and Goodyear together dominate the tire field. International Harvester runs a thriving business out of Durban. General Foods, Kellogg, and other U.S. food processing concerns also have sizable investments. All told, there are some 175 American companies active in South Africa. The scope and importance of U.S. business interests in the Union is reflected in the recent decisions by Chase Manhattan and First National City banks to open branches there.

• **Political Problems**—The South African crisis also creates political headaches for Washington. Many officials believe that U.S. expression of shock over South African developments and the U.S. vote for the Ecuadorian resolution in the Security Council, while they may increase our popularity short-term in Black Africa, could set an uncomfortable precedent. Afro-Asian diplomats have been quick to point out a contradiction between our policy toward South Africa and our hands-off policy in Algeria, for example.

The problem could also come nearer to home. One official put it this way: "If there had been a lynching in the South during the Security Council debate on South Africa, the U.S. could well have found itself hauled into the muck along with South Africa."

• **Southern Reaction**—Already events in South Africa are having an effect on America's Negroes in the South. "More and more of our people are talking about South Africa and relating

what is happening there to their own situation," says Mrs. Ruby Hurley, regional director for the National Assn. for the Advancement of Colored People in Atlanta. "I have the feeling that it is putting more spine—more courage—in our people."

• **Economic Chaos**—Economically, the South Africa emergency has had a chaotic effect: market value of South African shares has dropped some $1.5-billion, the bill for factory schedules and building programs disrupted by work stoppages may easily run to $40-million, housewives are hoarding, insurance rates are being doubled for riot damage. Sporting goods stores report a run by white families on firearms.

At midweek, there were a few signs that industry and commerce were presenting demands to the government. A number of prominent industrials are reliably reported to have met and insisted privately upon a change in government policy.

• **New Policy Expected**—If the current unrest in South Africa can be brought under control without a bloodbath, it seems quite certain that a new government will be set up eventually, supported by both Verwoerd's Nationalist Party and the more moderate United Party. The coalition would seek a more positive and conciliatory policy toward the Negroes, possibly patterned on earlier middle-of-the-road policy recommendations of the United Party.

Although the Union is still the world's largest gold producer and a leader in both diamonds and uranium, mining now represents only 14% of the country's gross national product. Manufacturing—especially textiles, metal processing, chemicals—accounts for nearly 25%.

• **Economic Slowdown**—In the past three years, however, there's been a slowdown in economic growth. An exporter of commodities, South Africa suffered from the world price slump in 1957 and 1958. Last year the slowdown was more apparent—but it stemmed less from outside factors than from the rumbling of racial discontent. As riots broke out sporadically, investors became wary. Net outflow of private capital in 1958 and 1959 amounted to some $60-million. Where foreign investors traditionally had held about 60% of the shares in the Union's mining industry, they reduced this closer to 50% by selling stock to South Africans.

• **Stock Market Drop**—This week, after the recent nosedive in stock prices, the market for South African shares seems to have stabilized somewhat. London investors have bought stock options, hoping for a recovery in the months ahead. U. S. investors, may feel insecure but they haven't as yet pulled out of the market in large numbers. Some Afrikaner investors welcome the chance to buy shares cheaply and get the Union's industry "back in Afrikaner hands."

South Africa has been turning a deaf ear to the world's protests against its apartheid policies. It says flatly that the crisis in the Union is an internal affair.

At the Commonwealth Prime Ministers Conference in May, Dr. Verwoerd will receive no sympathy. Certainly not from the non-white members, and probably not from Britain itself.

At midweek, the International Confederation of Free Trade Unions asked its 56.5-million members in 100 countries to begin a two-month boycott of South African goods on May 1. Some unions in Britain, Scandanavia, and West Germany have already begun a boycott.

• **Black Future**—White South Africans know the world is siding with the blacks. The Negroes know it, too. Though their leaders are now in jail and their parties are outlawed, the Negroes of South Africa are bound to find leadership and organize. If cool and reasonable heads prevail on both sides of South Africa's internal struggle, there may be a peaceful evolution in the Union. One way or another, change appears certain.

Woodmen Thwarted in Move

Nebraska stands guard to be sure the fraternal order doesn't move its home office to Georgia.

The Woodmen of the World Life Insurance Society, a fraternal organization with $600-million of insurance in force, $200-million in assets, and 400,000 policyholders was caught in a tug of war this week between the states of Nebraska and Georgia. The result was the sudden announcement by Chmn. E. D. Rivers that he had removed Pres. Howard M. Lundgren and had taken over the job himself.

On the surface, the fight is over whether the society, founded in Omaha in 1890, should move its home office to Atlanta or another city in the Southeast, where the bulk of its members are. Underneath, the fight is over Nebraska's persistence in getting the society to comply with Nebraska law. In addition, there is a long-standing fight between two groups for control.

• **Read All About It**—The turmoil goes back to last year when an advisory committee of the Woodmen met to consider moving its headquarters. William Grubbs, Nebraska's insurance director, read about it in his newspaper. After Pres. Lundgren of the Woodmen confirmed the story, Grubbs investigated and found that nobody had checked with his department.

There are only two ways by which an insurance company can be moved out of Nebraska—dissolution or merger—and both require consent of the state. So Grubbs objected. Further he concluded that the advisory committee had been improperly organized by the society's own constitution; its 22 members had been picked by Board Chmn. Rivers (who wanted to move) instead of Pres. Lundgren (who didn't), as the society's rules require.

• **Guard in Office**—On Mar. 4, Grubbs stationed an examiner in the society's offices and asked the society's officers to explain it all at a hearing in Lincoln on Mar. 21.

Grubbs threw the hearing open to the general public after Zack D. Cravey, Georgia's comptroller-general, insurance commissioner, and a key trustee of Georgia state pension funds (BW—Feb. 6'60,p106), accused him of trying to intimidate the Woodmen. Cravey is a friend of Rivers.

At the hearing, neither Rivers, who is an ex-governor of Georgia (1937-41) nor a majority of the board showed up. However, Pres. Lundgren did, and it was he who on the record gave an explanation for what had gone on: He had lost control of the society to Rivers.

• **Cloak and Dagger**—Grubbs obtained an opinion from Nebraska's attorney general upholding his objections to the society's actions. He sent this opinion to Rivers, who by then was holding his board meeting in Florida. Meanwhile, Grubbs continued his inquiry.

Tracing one rumor, he found that $100,000 in small bills was being stuffed in a box at the Woodmen's office. The money was to be kept there, he was told, as a precaution against enemy attack, floods, or bank closing.

• **Too Nosy?**—Cravey insists that Grubbs is being too nosy. "When an insurance company or society has ample capital, surplus and reserves, the insurance commissioner has no right to get involved in their affairs," he says.

Grubbs' examiner remains on the premises. Every day, he sets the time lock on the safe, or watches somebody else do it, and the next morning he is there when the safe is opened. To keep the Nebraska examiner company, Georgia's Cravey sent his own to Omaha.

Although the board evidently still intends to move—and probably to Rivers' and Cravey's home state—it decided this week to hold everything until it has advice of a management consultant.

New Drugs Aid Leukemia Fight

Tests on two new biochemical compounds indicate they "help significantly" in arresting the progress of leukemia; other tests give hope of a vaccine for the disease.

Scientists are still feeling their way cautiously, but there is good reason to suspect this week that they may be on the way to bringing cancer of the blood—the dreaded leukemia that kills 12,000 Americans annually—under medical control.

Two important developments lend support to this belief:

• Clinical test programs, using two new biochemical compounds—"antimetabolites"—called IUDR and Azauridine, look like the first real break in the government's intensive cancer chemotherapy program.

• There is new convincing evidence that leukemia is, indeed, triggered by a virus and that people can be immunized against it.

• **Right Track**—National Cancer Institute spokesmen are chary about stirring up too much excitement about the recent leukemia discoveries until further checks have been made. But in the laboratory, researchers are convinced they're finally on the right track.

There's no indication yet how many other kinds of cancer will profit from the leukemia discoveries. But scientists working in fields from lung cancer to cancer of the stomach have been reviewing the leukemia data carefully. Their aim is simple: to attempt to set up similar tests for other types of cancers, in the hope of getting like results.

• **Remedy by Ruse**—The two new drugs are products of the government's themotherapeutic approach to cancer research—the testing of every known drug and chemical for its cancer-control value.

The antimetabolites, such as IUDR and Azauridine, work in the bodies of leukemia victims through down-and-out chicancery. Just as a trout may be tricked into snapping up a fisherman's lure because it resembles a fly, so the cell nucleus can sometimes be fooled into accepting an antimetabolite in place of the nutrient that it normally assimilates.

When the cell discovers its mistake, it's too late. The antimetabolite has been taken up and has combined inside the cell with various other cell building blocks. Because the drug is different, however, the cell cannot continue to utilize the antimetabolite very long. So, eventually, all cell action (including the production of nucleic acid in cells that have assimilated the antimetabolite) comes to a halt.

It's this that makes the antimetabolites particularly suited for treating cancer—since one characteristic of cancer's spread is wild cell multiplication, which requires abnormally great amounts of nucleic acid, which the antimetabolites shut off.

• **Proof**—The trick is to find an antimetabolite that is non-toxic to normal cells and will shut off all action in diseased cells only. This selectivity is extremely difficult to find. But IUDR (iododeoxyuridine) and Azauridine, look like two good candidates.

Both compounds were first synthesized at the Yale University School of Medicine. Both have been studied clinically at hospitals under the sponsorship of the Public Health Service's National Cancer Institute.

Early tests of Azauridine on a dozen adult patients show that the drug has "helped significantly" to arrest the progress of leukemia, according to Dr. Arnold D. Welch of Yale's Pharmacology Dept. The number of white blood cells in the blood streams of patients tested have dropped rapidly when Azauridine was administered.

Since the number of white blood cells is always highly elevated in leukemia, this is a pretty solid proof that the Azauridine has managed to get into the rapidly proliferating cancer cells and stop them from propagating.

• **Picking Their Target**—Other drugs used against cancer (certain of the antibiotics, hormones, and alkalating agents) attempt to poison cancer cells in the bone marrow and intestinal lining. But they are more or less indiscriminately toxic to normal cells and abnormal cells alike.

The real importance of the discovery of Azauridine and IUDR (which is currently being tested at the Sloan-Kettering Institute and at the University of Wisconsin) is that they harm cancer cells without harming normal ones. With this knowledge, there's every reason to hope that researchers will be able to develop other similar drugs—to do their job even better.

Dr. Alfred Deutsch, president of the California Corp. for Biological Research, Los Angeles (Calbiochem), the company turning out Azauridine and IUDR for the Cancer Institute for test purposes, says his scientists are currently trying to synthesize another antimetabolite called BUDR (boro-deoxy-uridine). In structure, this is similar to IUDR; but it's reported to have some promising effects on cancers other than leukemia. It's so new, though, that it hasn't been evaluated by the government yet.



DR. W. C. HUEPER says one big problem in cancer research is finding susceptible sectors of population for mass tests.

• **Complications**—One big problem in extending human testing seems to be that production of the antimetabolites is exceedingly complex. Over 100 lb. of salmon sperm must be processed to produce one ounce of pure IUDR. One substance needed in the extraction is Russell's viper venom, imported from India.

Azauridine is produced by fermentation. This is the same general procedure used to make beer, wine, penicilin, and vitamin B-12. But for Azauridine, a 2,000-gal. vat of material must be concentrated and purified to obtain just once ounce or two of the drug.

A second big block is the cost of the drugs. IUDR, at the moment, costs $5,000 per lb.; Azauridine $20,000 per lb. If Calbiochem used its production facilities to the fullest, it could probably bring these costs down to $1,700 and $1,000 per lb. respectively. But for mass tests, even these prices would be high.

Synthesis appears to be the only good answer to this problem. But, researchers are only probing in this direction.

• **Testing Problem**—A third big problem, according to Dr. Wilhelm C. Hueper, chief of the environmental cancer section of the National Institute, is that major industries and even governmental agencies have refused to cooperate with researchers looking for particularly cancer-susceptible sectors of the population for test purposes.

A number of large companies in the

chemical, rubber, oil, and metal processing industries have run their own studies of the incidence of cancer among employees. These statistics would be extremely useful if and when mass testing of cancer drugs starts. But the companies have stoutly refused to open their files to the National Institute.

And though lung cancer has been reported as especially heavy among uranium miners in the Rocky Mountain area, Hueper says that the Atomic Energy Commission has been equally adamant about releasing its studies of the situation.

• **Spectacular**—Considerable progress has been reported on another front in cancer research, though. In a spectacular experiment run on 13 Cook County (Chicago) prison volunteers, humans for the first time in the U.S. seem to have been made immune to leukemia, through the injection of live virus into their bloodstreams.

This virus, obtained from the brains of patients who died of the disease, did not cause any of the volunteers to develop the symptoms of leukemia, or any other medical ill effects. The same virus, injected into mice, gave the mice leukemia. But it caused the volunteers' bloodstreams to build up protective antibodies. When their blood was transfused into mice, the mice could receive live virus injections without getting the disease.

• **Still a Long Road**—This doesn't mean that a vaccine preventive for leukemia is just around the corner. For one thing, the injection material containing the virus is still crude.

In addition, somebody will have to come up with a new way to obtain (or grow) great quantities of the live virus, since supplies from dead victims of the disease can't be expected to provide enough vaccine. Monkey kidney tissue is used to grow live polio virus. But it apparently isn't an equally good medium in which to grow leukemia virus.

"What we really need now is an Enders," says Dr. Steven O. Schwartz, who ran the Cook County Prison experiments. Dr. John Enders, a decade ago, devised the technique for growing live polio virus in a test tube.

Smogless Cars for California

State's new law fixing time limits for new and used autos to get anti-smog devices for exhaust will set off rush by makers of devices to have them approved.

California's legislature passed this week an air pollution control law that is expected to provide a model for other smog-hit areas to follow. The California law will eventually require every motor vehicle in the state to carry some sort of air pollution control device to rid its exhaust of smog-producing vapors and gases. Most state and local health boards concerned with the problem have been waiting to see what kind of bill Los Angeles County's Air Pollution Control District could get the state body to adopt.

The law that came through on Tuesday—strongly supported by Gov. Brown—is tough. It has significance for more than the watery eyed citizens of California and other states. The automobile and petroleum industries will feel its effects, and manufacturers of air pollution devices for autos will be in a stampede to develop products acceptable to California authorities.

Beckoning them on is a legislated market of 7.5-million vehicles now in use in the state, plus new car equipment sales of 650,000 a year.

• **Timetable**—The law provides an extended timetable for compliance. First to be affected are new cars. All new cars sold in California must be equipped with anti-smog devices one year after two or more such devices are approved by a 13-man Motor Vehicle Pollution Control Board set up within the state's Dept. of Public Health.

All used cars must be equipped within three years, used commercial vehicles within two. The law plugs a possible loophole—selling low-mileage new cars as used cars to escape the one-year time limit for new cars—by requiring that all used cars transferred in ownership must be equipped with approved devices within one year, unless specifically exempted by county boards.

This local exemption privilege is provided in the law for smog-free areas. Boards of supervisors of fresh-air counties can establish through public hearings their lack of need for anti-smog car devices. But to exempt themselves, they must meet air purity standards set up by the state.

The law grants $500,000 to the Motor Vehicle Pollution Control Board to support the program and to contract for tests of devices at qualified outside laboratories. The state itself will not maintain a testing lab.

• **Standards**—The all-important standards for rating anti-smog devices and for contamination levels in local areas were published last December. The exhaust standards for cars require an 80% reduction in exhaust carbon emission, with maximum permissible concentration set at 275 parts per million. Carbon monoxide must be reduced by 60% to a maximum of 1.5% of exhaust volume. Both these standards must be met for approval of devices for new and used cars.

That's where the first race will come in. According to Smith Griswold, chief of the Los Angeles County Air Pollution Control District, about 20 devices that "could prove satisfactory" are in various stages of development.

• **Types of Devices**—Griswold refused to single out any of these (every time he mentions a name, it starts a stock market rush, he complains), but he did specify the two types of devices that look most practical. One type uses a catalytic agent that processes the undesirable elements out at low or medium temperatures. The other is a direct-fired afterburner that operates at high temperatures to complete the combustion of unburned hydrocarbons coming from the engine.

Catalytic devices now are cheaper, but are subject to poisoning from lead, or an overdose of unburned fuel from a malfunctioning engine. Direct-fired afterburners are more expensive, but would probably last a lot longer, need less maintenance.

The auto manufacturers are all working on practically every variation of anti-smog devices. Chrysler has demonstrated an afterburner, Ford and General Motors cars have shown up for test runs sporting the catalytic types. Many chemical and oil companies are pushing research in the hope of coming up with an unpoisonable catalyst. Some are concerned lest approval go to a catalyst that could be poisoned by tetraethyl lead, with a resultant adverse effect on sales of leaded gasoline.

• **Doubts**—The auto makers, though working hard on exhaust control systems, tend to doubt the effectiveness of the California legislation. Many believe the law is unenforceable, since the state has no auto inspection facilities to check on the emission from defective or very old cars.

Ford, GM, and Chrysler all contend that the effectiveness of any anti-smog system depends more on the condition of the engine than on the device. They maintain that a properly tuned new car with no afterburner emits less smog-producing exhaust than an old car with the best smog reducer. They feel no device they've tested can meet the stiff California standards and the lawmakers have merely passed a law to satisfy public pressure, knowing that no acceptable device exists. But with the California market beckoning, there will be no shortage of people trying to get a device approved—the auto makers among them.



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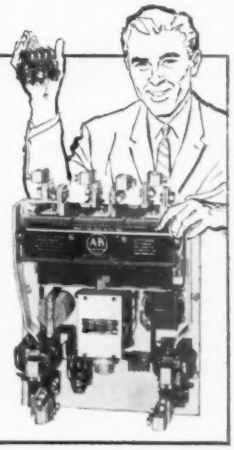
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Canada to Sell U.S. More Gas

Export of more than 1-billion cu. ft. a day, mostly to the Midwest and West Coast, has been blessed by the Canadian government, which now thinks its reserves are ample.

Canada, long tight-fisted with its rich reserves of natural gas, last week officially let loose a lot of the wealth. Prime Minister John Diefenbaker's Cabinet in Ottawa agreed to go along with recommendations of the new National Energy Board that more than 1-billion cu. ft. of gas a day be exported to the U. S.

The announcement made public details of the first decision reached by the board since it was formed in 1958, primarily to bring under one roof federal regulation of Canada's exporting of natural gas and hydroelectric power. Earlier this year, the board held six weeks of hearings on five applications to export gas (BW–Dec.12'59,p110).

• **One Down**—In its finding, the board approved four of the applications and rejected only one, of relatively minor importance. Its blessing will open the way to a new surge of activity in the gas fields of Alberta and in related endeavors such as pipeline building and petrochemicals. The new projects will involve an estimated outlay of at least $200-million for transmission facilities in Canada alone. By yearend, the gas should be flowing into the U. S. Midwest, and in 1961 into the Pacific Northwest and California.

The Canadian government's O.K. went to proposals from these four applicants:

Trans-Canada Pipe Lines, Ltd., which already moves Alberta gas eastward as far as Montreal, can now deliver up to 204-million cu. ft. daily at the U. S. border south of Winnipeg to Midwestern Gas Transmission Co., a subsidiary of Tennessee Gas Transmission Co. To make this possible, Trans-Canada will build a 52-mile link from its main line in Manitoba to the border, where Midwestern will take over with a proposed $52-million, 504-mile line to Marshfield, Wis. The Federal Power Commission has already given the go-ahead to the U. S. facilities needed, and by starting construction "as rapidly as possible," Midwestern may finish the job by fall.

Midwestern has lined up several customers for its new gas supply. The bulk of it—158-million cu. ft. daily—will be sold to Michigan Wisconsin Pipe Line Co., which will spend $24-million to connect its system with Midwestern's. Much of this gas will wind up in the Chicago area. Another 30-million cu. ft. daily will go to Minnesota's Northern States Power Co.

Midwestern's parent, Tennessee Gas Transmission, has a second deal with Trans-Canada farther east. This one, also approved by the Energy Board, calls for delivery of up to 204-million cu. ft. daily on an "interruptible" basis—meaning only when the gas isn't needed in Canada for higher-priority uses—at Niagara Falls. The gas would flow through existing pipelines. It's likely that TGT wants the link to give it an emergency source of gas should something happen to the supplies it brings from the Southwest.

Alberta & Southern Gas Co., Ltd., a wholly owned subsidiary of Northern California's sprawling Pacific Gas & Electric Co., will be licensed to export 459-million cu. ft. daily near Kingsgate, B. C., across the border from northern Idaho. Through another subsidiary, PG&E plans a 1,400-mile pipeline to push this gas to the San Francisco area. Cost of the entire project has been placed at almost $338-million. To bring the gas to Kingsgate for delivery to PG&E, an 108-mile line will be built by Alberta Natural Gas Co.

Westcoast Transmission Co., a Canadian pipeline company that is already selling gas to U. S. buyers at Sumas, B. C., north of Seattle, will share the Alberta Natural Gas route to Kingsgate to export another 152-million cu. ft. a day. The customer for this supply, El Paso Natural Gas Co., wants to carry most of it to Southern California, but it would have to lay new pipe from Provo, Utah, south to do so.

Canadian-Montana Pipe Line Co. will provide 36-million cu. ft. daily to its parent, Montana Power Co., at the Montana-Alberta border near Glacier Park. It will build a 3-mile link to the new Alberta Natural Gas line.

• **Soon to Start**—An early start will probably be possible on all the interstate pipelines needed in the U. S. to take the new imports to market. Applications for all of them except the El Paso line south of Provo have been filed with the FPC, and a combined hearing on the group has been completed before an examiner.

The only request for a Canadian export license to be denied was from Niagara Gas Transmission Co., a subsidiary of Consumers' Gas Co. of Toronto. Niagara wanted to move Canadian gas across the border into New York State to serve the Massena-Ogdensburg area. This plan had already been in hot dispute at the FPC, whose staffers endorsed a rival application by New York Natural Gas Corp. to sell U. S.-produced gas in the same area. Now the domestic applicant is virtually sure of final FPC approval.

• **Reasons for Change**—A number of factors lie behind the Canadian government's liberality with natural gas supplies. One reason is that reserves are proving much vaster than had earlier been estimated. The National Energy Board placed the total, as of yearend 1959, at 30.3-trillion cu. ft.—and predicted a figure of 46.4-trillion cu. ft. by 1989. These reserves would be ample to guarantee Canada's own supply and allow exports, too, the board concluded. The exports approved last week would total about 6.5-trillion cu. ft. over 20 to 25 years. By 1963, the board said, these sales to the U. S. should be worth about $75.5-million annually.

The board also cited potential benefits to the Canadian economy from gas export business. The construction of new pipelines should give jobs to some 20,000 persons, for one thing. In addition, the new market will bring into production some of the $200-million worth of gas wells that have stood capped and idle for several years, waiting for customers. Alberta alone has 1,000 such wells. And exploration will be spurred.

John Proctor, general manager of the Canadian Petroleum Assn., foresees an outlay of $6.8-billion for gas and oil development in Canada over the next 10 years.

• **Helping Trade Balance**—Sales to the U. S. will help Canada's trade balance, which ran a deficit of $1.5-billion last year. Gas exports should partly offset the $300-million-a-year uranium business that will almost disappear by 1966. This may be of some political help to Diefenbaker's government, recently a target for opposition attacks because of the unfavorable balance of payments.

One problem, though, will be that much of the investment to make the exports possible will come from the U. S., and this flow may well add to the complexities of the relationship between the U. S. and Canadian dollars. Canada's dollar has recently been worth up to 6¢ more than its U. S. counterpart on the Canadian market.

In the U. S., the parent companies of the successful Canadian applicants were naturally elated. And FPC Chmn. Jerome K. Kuykendall went so far as to voice optimism that "in the future, when there is a need, gas will flow between the United States and its neighbors irrespective of international boundaries."



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Bank Mergers Closely Controlled By Law Nearing Senate Approval

A federal law to spell out regulations on bank mergers and acquisitions now appears likely before Congress adjourns, even though such efforts have ended in failure during the past five years. The House this week passed a compromise bill worked out with officials of the Justice Dept. and federal banking agencies, and the Senate is expected to go along. Pres. Eisenhower has been urging such regulation for years, so he would sign a bill.

The new law would cover virtually every bank merger or acquisition of either stock or assets. It covers all banks insured by the Federal Deposit Insurance Corp. Each bank would have to get approval, in advance, from the Comptroller of the Currency, for national banks; the Federal Reserve Board, for state member banks, or FDIC, for insured nonmember banks.

Regulatory agencies would be required to consult each other and the Attorney General regarding effects on competition. The House bill lists six banking considerations that must be weighed, as well as one more general consideration: **"the effect of the transaction on competition—including any tendency toward monopoly."**

This language barely satisfies the ardent antitrusters, such as Rep. Emanuel Celler (D-N. Y.), who want bank mergers tested by exactly the same competitive standards that are applied to industrial mergers. But it goes further than the Senate bill's language, which pro-bank factions favored. It looks as if the Senate is faced with accepting the compromise bill or stalling any legislation once more.

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Critics Get Set With Charges Of Graft in Federal Road Program

The multibillion-dollar highway program is about to become the target of Congressional investigation of graft and corruption, and its defenders will be crying "politics."

The Bureau of Public Roads is braced for an onslaught by Rep. John A. Blatnik (D.-Minn), chairman of a subcommittee set up last year to look into the cost of the road program. **Blatnik has an aggressive staff, picked up mainly from the now defunct McClellan rackets committee,** and his flying squads have gone into New Jersey, Pennsylvania, South Dakota, Montana, and possibly other states. In a couple of weeks, Blatnik plans to hold brief hearings in Tulsa on why a 9½-mi. stretch of federal highway is starting to crumble only a year or so after completion.

Blatnik is expected to set up one or two other such hearings before Congress adjourns—**enough to throw suspicion on the highway program and keep interest high in his $300,000 subcommittee**—but to save his big blast for next year, when Congress is less pressed for time.

Spokesmen for the Bureau of Public Roads say questionable incidents are inevitable in so vast a program. But they insist the over-all record will be clean.

• • •

Rough Winter Turns to Nasty Spring, Floods in Midwest Worst in Years

Not content with blighting retail business in much of the nation (page 23), the weather now is trying to make people wish they had never heard of spring. A quick thaw of abnormally heavy snows, plus heavy rains, boiled up the worst floods in years in the Midwest. New England and the Middle Atlantic states have definite flood worries, too.

By midweek, the Mississippi-Missouri system, on its wildest rampage in 13 years, had forced 30,000 persons out of their homes in seven states. And the crest isn't expected at St. Louis until Monday, 4½ ft. above flood stage. The meeting of the Mississippi and Ohio Rivers at Cairo, Ill., is scheduled to produce an even higher crest next week, but dikes give Cairo a good margin of safety.

Army Engineers said at midweek that 500,000 acres were under water along the Missouri from Kansas City to St. Louis.

The Mississippi had broken levees at many points and had gone over others as high as 30 ft. Boats tied up at parking meters in downtown Hannibal, Mo., and the little town of Meyer, near Quincy, Ill., was completely under water.

• • •

Compacts Rate Thriftiest in Economy Run—Still Lag Behind Some Imports

Dealers in foreign cars worried about the inroads of U.S. compacts on their sales (BW—Apr.2'60,p25) could draw some comfort from the results of this week's annual Mobilgas Economy Run.

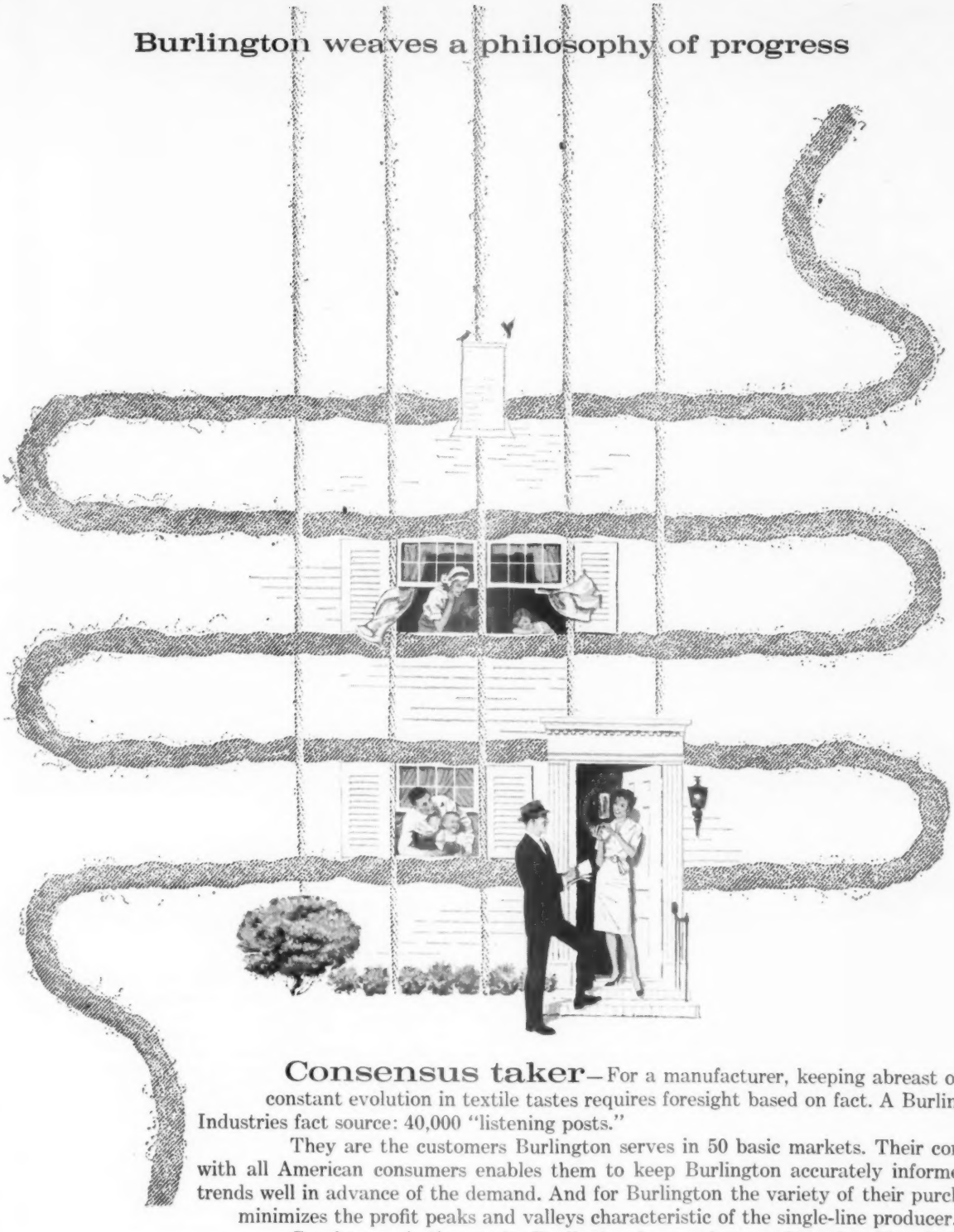
As expected, Detroit's new compact cars were more temperate in their thirst for gasoline than any other U.S.-made autos. **But none of them approached the scores set by the leading imports in 1959's Mobil Mileage Rally.**

The Rambler American Custom was best of the U.S. lot, with a record of 28.35 miles per gal. on the 2,000-mi. push from Los Angeles to Minneapolis. Valiant ranked second at 27.30 mpg. and Corvair third at 27.03 mpg., followed by Ford's Falcon with 25.64 mpg. All fell far shy of Renault Dauphine's 46.25 mpg. and Volkswagen's 43.67 mpg.

At the same time, **the compacts were only a few hairs ahead of standard-sized low-price cars** such as the Plymouth Savoy 6, with 24.83 mpg. and the Dodge Dart 6, with 24.74 mpg. This relatively thin margin provided further ammunition for the argument that the compact models are not "economy" cars in the true sense of the word.

Because skilled professional drivers are at the wheel during the cross-country run, it's almost impossible for the average motorist to duplicate these scores.

Burlington weaves a philosophy of progress



Consensus taker—For a manufacturer, keeping abreast of the constant evolution in textile tastes requires foresight based on fact. A Burlington Industries fact source: 40,000 "listening posts."

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WITH A BENDIX RADIOTELEPHONE HOME IS AS NEAR AS THIS MICROPHONE

Ship-to-shore telephoning has been a convenience heretofore reserved for those who had large boats. Now, thanks to transistors—which reduce battery drain to almost nothing—and the Bendix® approach to circuit design, owners of even small outboard and inboard cruisers can telephone to shore with a high performance, inexpensive Bendix marine radiotelephone.

These Bendix radiotelephones are providing two-way voice communications over unusually long distances. Shore stations are contacted and the calls then are relayed to any place in the world over conventional telephone lines. In time of emergency, calls to other boats or to Coast Guard facilities can be made. In addition, entertainment broadcast reception is provided.

Because of their compact size, there is room for these new Bendix instruments aboard the smallest craft. They can be installed in any suitable location . . . are easily removed for safe storage when not in use. The sets can be used with another Bendix exclusive development—the "Tenna-Coupler" which completely eliminates the need for all underwater ground connections.

There are three models of these high performance transistorized radiotelephones, from 25 to 65 watts, to meet every requirement. They are manufactured by our Bendix Pacific Division, North Hollywood, California, which makes a complete line of other electronic equipment—automatic pilots, depth sounders, direction finders and marine radar.

Other divisions produce the Bendix starter drive which helps eliminate rope hand starting on outboard motors. Other products include a flame arrester, an electric fuel pump, and an outboard motor magneto-generator which improves ignition and keeps batteries charged.

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WASHINGTON OUTLOOK

WASHINGTON BUREAU
APRIL 9, 1960



The time for some Congressional decisions on taxes draws near. Neither House nor Senate has acted yet on bills to extend corporate income rates and the Korean War excises. When these bills start through the legislative mill, some other tax issues will come alive.

This is the tax situation at the Capitol as this session of Congress passes the halfway mark on the road to early July adjournment:

The Ways & Means Committee is snagged on social security proposals at this time, with the majority holding out against health insurance or other changes that would require an increase in the social security tax. The committee has given a burial, of sorts, to the Forand bill. But that measure is destined to come alive again—most likely in the Senate, in the form of an amendment to social security legislation of lesser scope.

The "old folks" issue grows hotter, forces some GOP lawmakers to move away from the Eisenhower Administration which, despite Vice-Pres. Nixon's urgings, has not come up with a bill of its own. Nixon is the man behind a new voluntary health insurance proposal trotted out this week by five Republican senators after a White House conference at which Eisenhower assented only to some "broad principles."

The Boggs bill to stimulate foreign investments faces an uncertain future. The House took it up once and quickly put it aside when unexpectedly furious opposition developed. The bill is being revised, and the idea—to give U. S. companies a tax break on foreign earnings—probably will be applied only to profits in underdevoloped countries, if it can be saved at all.

A variety of other measures are on the doubtful list. Sen. Harry F. Byrd has toyed with the idea of withholding taxes on dividends, but has not pushed it. Nor has the Finance Committee moved yet with the controversial bill that would permit tax deferral on contributions made by self-employed persons to private retirement funds.

One important tax issue for business now is given little chance. This is the proposal to allow deduction of lobbying and similar expenses.

Little sentiment shows up for general tax relief. In the event it does spring up later, the Democratic leadership is prepared to beat it down.

The major Democratic effort on taxes will come next year—and in the name of revision rather than reduction.

—•—

Labor's legislative program in Congress is in trouble. Union leaders, smarting because of the 1959 whipping they took with enactment of the Landrum-Griffin reform bill, had hoped for some compensating friendly legislation out of the 1960 session.

Two big "bread and butter" bills are of direct concern to labor. At the moment, the prospect is not particularly bright for either of them.

Minimum wage legislation is bogged down in a House Labor subcommittee. Capitol insiders say attempts to bury it there are being masterminded by Rep. Phil Landrum (D-Ga.), co-author of the 1959 reform act.

WASHINGTON BUREAU
APRIL 9, 1960

The AFL-CIO is talking compromise in an effort to salvage some improvement in the wage law. Big labor formerly was all out for a jump to a $1.25 hourly minimum rate and immediate extension of coverage to millions more workers, mainly in the retail trades. Now, AFL-CIO Pres. George Meany is telling Congress that labor will take the higher hourly rate in two steps and is agreeable to bringing new workers under wage and overtime provisions in a series of steps over a four-year period.

Softening of Taft-Hartley strictures on building trade unions also is in doubt. Labor's goal here is legislative exemption of picketing at construction sites from secondary boycott charges.

As Taft-Hartley stands, one building union cannot picket one contractor at a construction site if its picketing adversely affects work being done by other contractors at the same site. The effect of the labor-backed amendment would be to classify all contractors involved in a job as a single employer.

Congressional leaders pledged action, but they may have to renege.

A new life for the Senate's labor rackets committee is in prospect.

The AFL-CIO is bitterly opposed. Meany brands Sen. John L. McClellan's select committee—whose franchise officially expired Mar. 31—as "a sounding board for reactionary anti-union elements."

Chmn. McClellan wants to carry on through January, 1961. There is opposition in the Senate, but he likely will get the money and authority.

—•—

A new problem case under the Buy American Act involves efforts by the Panama Canal Co. to purchase 39 towing locomotives and three cranes. A Japanese concern, Mitsubishi Shoji Kaisha, bid low at $3.8-million—against $4.7-million by the second low bidder, Plymouth (Ohio) Locomotive Works.

The Ohio Congressional delegation is protesting, and its efforts have blocked a final decision for the time being. Even after making all the upward revisions required by law, the Mitsubishi offer still is about $184,000 under Plymouth's bid.

—•—

Social and economic problems of public housing are analyzed from a wide variety of viewpoints in a new book, Views on Public Housing, to be released next week by the government. It features 150 pages of opinion—solicited by Federal Housing Administrator Norman P. Mason—from business executives, labor leaders, spokesmen for minority groups, scholars, sociologists, and municipal authorities.

Mason is publishing the book without official comment on the merits of any suggestions, but several notes recur.

Requirement of some form of public subsidy as a necessity in providing decent housing for low-income families is, for example, one key concept that most of the 49 participants agree upon. There is sharp division, though, on the question of how much of the subsidy should come from the federal government. Another basic notion is the necessity to scatter public housing projects—especially in big cities.

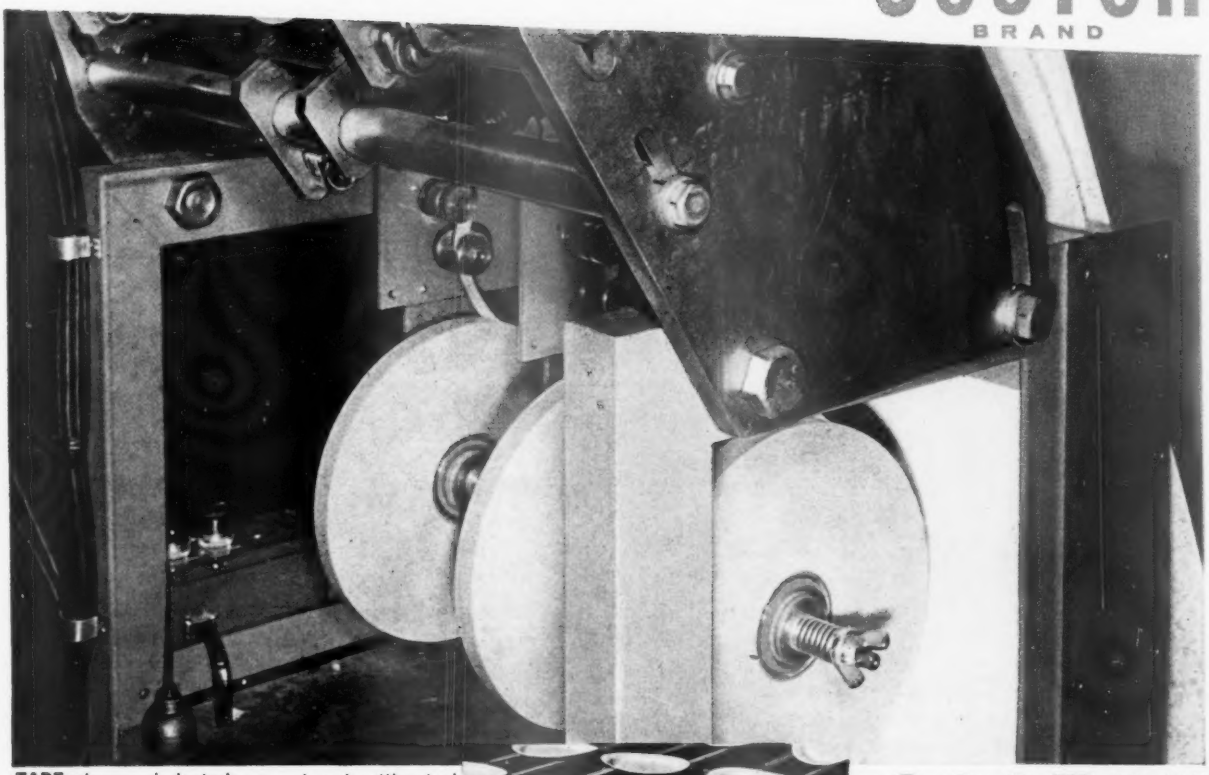
Free copies of the book may be obtained, while the small supply lasts, by writing to the Housing & Home Finance Agency, Washington 25, D. C.

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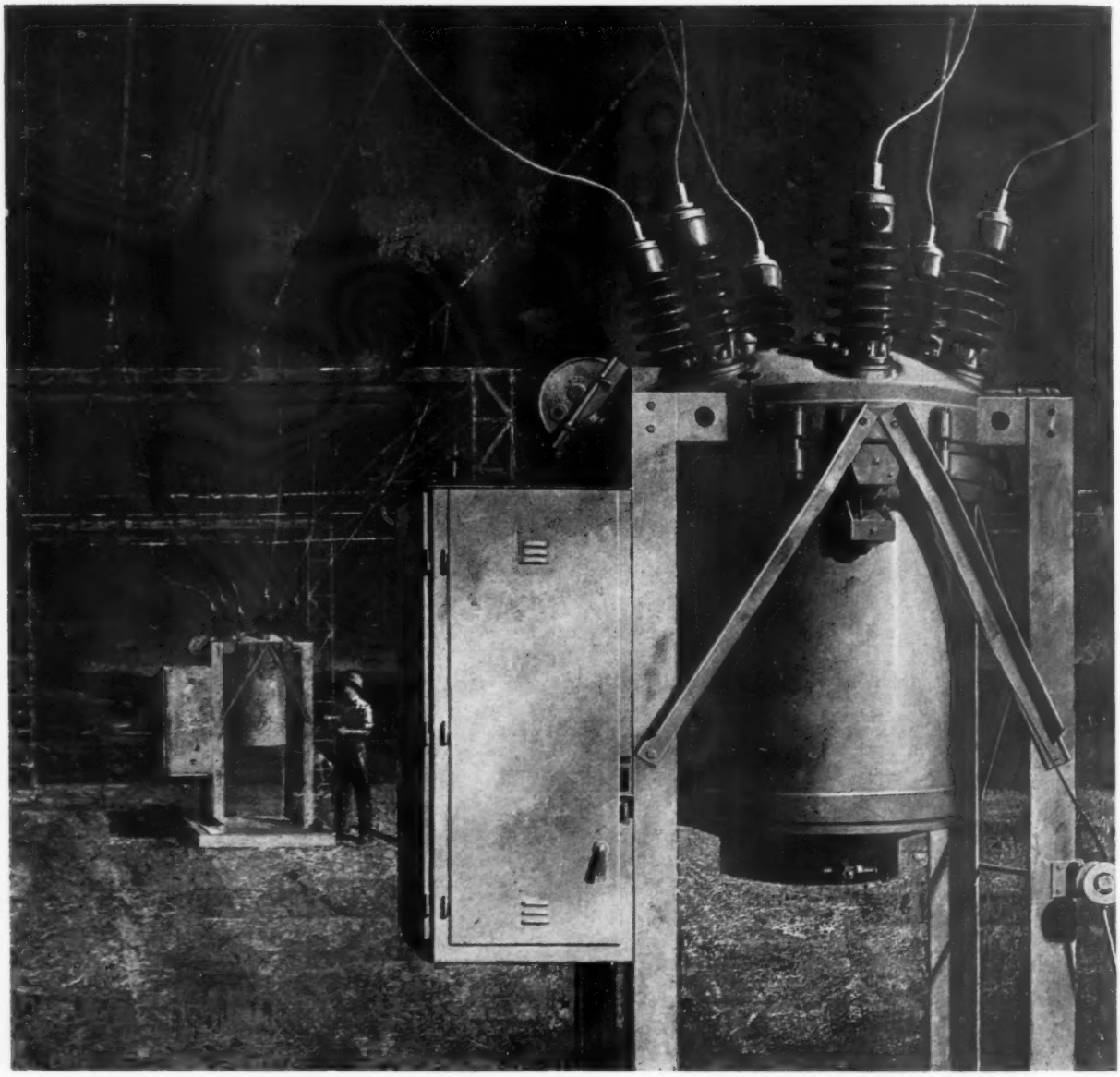
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In a power distribution switchyard, painted here by artist Ned Seidler, I-T-E single tank oil circuit breakers make the most of every foot of space.

NEW I-T-E SPACE SAVER AT 46,000 VOLTS

Normally you want to give electric power of this voltage all the room you can. But today, sometimes space is just plain scarce. This is getting to be more and more of a problem with America's expanding electric power companies. So I-T-E recently developed this new single tank oil circuit breaker capable of protecting circuits to 46,000 volts. Because it puts all three phases in one tank, it saves much of the space that would otherwise be needed by three tanks. Putting equipment components so close at this voltage is quite a feat of engineering. But I-T-E engineers are skilled at translating practical needs into functioning electric equipment. That's why you find I-T-E in the lead of so much of the progress that spells more dependable and economical electricity for users everywhere.

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I-T-E CIRCUIT BREAKER COMPANY

FINANCE

SBICs Seek Changes to Survive

● In a year, small business investment companies have sprung up all over, and SBA is still optimistic.

● But the men running SBICs, and many in Congress, see the whole program in need of a good overhaul.

● Main complaint is lack of funds to lend; SBICs try to remedy this by joint ventures and sale of stock.

Small business investment companies, a form of financial institution barely a year old, are beginning to crop up all over the map—but their growing pains are so severe that they may not survive without some basic changes.

The small business investment company program was launched a little over a year ago when Congress authorized the Small Business Administration (SBA) to charter privately owned investment concerns (SBICs) that would provide a ready source of long-term capital for small businesses (BW—Mar.14 '59,p47). As an inducement to private investors, Congress offered all sorts of tax benefits as well as federal funds.

• **Welcomed**—The program was welcomed by a lot of small businesses; with money tight, these have not always been able to get the funds they needed. In general, the small business, even one with a growth record, doesn't enjoy the freedom of choice that a big business commands. The small business can't get so much as it needs at the banks; and if it seeks long-term money it often finds a public offering risky and expensive—when funds are available at all in this way.

So the SBICs seemed to fill a gap. They were set up solely to provide long-term funds, not short-term bank loans. This was the crucial area, for small businesses have generally been able to raise funds on a temporary basis.

• **But Falling Short**—Now, a year later, 90 companies are in the field as full-fledged SBICs, with 150 others either applying or in the process of organizing. But despite these numbers, the program has not really accomplished its objectives, and Congress and existing SBICs are plumping for changes.

According to Sen. John Sparkman (D-Ala.), chairman of the Senate Small Business Committee, "the honeymoon is over on this program and has been for six months." He says it is "not quite fair to characterize the program as a complete failure," but he adds that it is not yet the success that "we all visualized."

• **Weighing the Results**—The 90 companies organized in the past year have about $50-million in capital and surplus, $8.7-million of which has been supplied by SBA. Perhaps one-third of the $50-million has been loaned out to small businesses. This is just a drop in the bucket, far below even the most conservative projections.

Officials in the SBA are somewhat disappointed at this growth pace. But Duncan Read, a former Dillon, Read & Co. partner now in charge of the program, argues that the number of SBICs is already enough to prove there is "nothing wrong with the program." Read, like others at SBA, looks on the program as a "hopeful experiment," and is still optimistic about its future.

In contrast, a BUSINESS WEEK survey of SBICs this week shows that most of those actually operating companies under the program think it needs a good overhaul. Their most frequent complaints: difficulty in raising ample capital, coolness by the rest of the financial community toward the untested SBICs as a sound investment risk, and the jungle of red tape that surrounds the program. SBIC managers say that most small businesses approaching them for funds aren't worth the trouble of "opening our doors." If the program is to succeed for meritorious small concerns, they say, it must be reshuffled and strengthened.

I. Not Enough Funds

The biggest problem seems to be that SBICs can't provide enough capital to borrowing companies. But this in turn stems, in large part, from the lack of funds that most SBICs themselves have for lending.

To start up, a new SBIC needs a minimum of $300,000 in capital. Up to $150,000 of this can be obtained from the SBA, which will buy the new company's debentures. In addition, the SBIC can borrow from SBA up to 50% of its paid-in capital and surplus—over and above whatever SBA provided by buying debentures. This means that a minimum-sized SBIC could borrow another $150,000.

An SBIC also can borrow from other sources—banks, insurance companies, pension funds—as much as four times its capital and surplus. Thus, even the smallest SBIC has a theoretical potential of some $1.5-million for investment in small business. In practice, however, the bigger institutions have shied away from investing in SBICs.

So far, about 80% of the licensed SBICs have put up only the $300,000 minimum. A number of these already have fully committed themselves to borrowers—leaving them with no funds for the scores of new applicants banging on their doors. Moreover, an SBIC cannot tie up more than 20% of its total lending power in one deal. But, like other lenders, SBICs see the bigger deals as the safer ones; with the result that five or six such borrowers exhaust their available fund. This, say SBIC critics, proves that present capital standards aren't adequate.

• **Disagreement**—Sparkman takes this view. He feels that an SBIC needs at least $2.5-million for efficient and flexible operation, and he has asked that the SBA step up from $150,000 to $1-million the amount of debentures it can buy from an SBIC. He would also raise to 100% from 50% the amount that SBA can lend to an SBIC.

Duncan Read opposes this plan. He points out that the SBICs haven't drawn down all the funds they are entitled to, and adds that many SBICs still are not loaned up on their private capital. "If more money is needed," he says, "there is still time left to study the matter to determine the best way to provide it."

Read's view is motivated by SBA's fear that the new program will become a tool for smart money operators out for a killing, not to promote small business. Sparkman thinks SBA's attitude is wrong. He argues that it is too cautious, wants the program to cut down on red tape, build up a "courageous, flexible, and imaginative administration."

• **Proposals**—Supporting Sparkman is Rep. Wright Patman (D-Tex.), whose House Banking Subcommittee held hearings this month on the program. At these hearings, SBIC men called for a number of legislative changes—some obviously aimed at benefiting mainly the SBICs themselves:

• Creating a federal agency modeled after the Federal National Mortgage Assn. (Fanny Mae) at which the SBICs could discount notes and con-

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Totally new for *total* savings! Ford's new Falcon Ranchero delivers up to 30 miles on a gallon, yet its new 90-hp Six is geared to do a real job! There are lower costs for oil, tires, brakes, parts . . . nearly everything!

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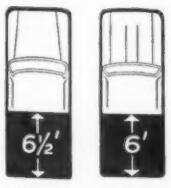
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LESS TO BUY... LESS TO RUN... BUILT TO LAST LONGER, TOO!

vertible debentures they have bought.

• Allowing SBICs to set up tax-free reserves of 20% to 30% of their profits each year.

• Exempting SBICs from the Investment Company Act of 1940, thus allowing them to offer stock options in order to attract and retain high-caliber personnel.

• Dropping the provision that a borrower must invest in the stock of the SBIC from 2% to 5% of the funds it receives from the SBIC.

II. SBICs Take Action

SBIC men, however, are not waiting for Congress to act. They are taking two big steps to assure that their source of investment capital doesn't run dry. They have already introduced one important innovation—joint participation by a group of SBICs in financing ventures. And many SBICs also are considering floating common stock issues.

• **Joint Ventures**—At least a handful of joint ventures have been undertaken. A team of five SBICs raised $275,000 for a land development project in Prince George County, Md. for construction of about 500 low-cost homes. The contractor had held the land for several years but was unable to secure bank financing. He got help when SBICs from Houston, Washington, Miami, Philadelphia, and Baltimore took part in the undertaking.

Another joint participation was undertaken by the Morris Plan Business Investment Co. of Cedar Rapids, Iowa, and the Alliance Business Investment Co., of Tulsa. Each put up $80,000 for a housing development outside Cedar Rapids.

This trend is sure to continue. "Participating in joint ventures is the big future of the SBIC program as it now stands," says Thomas Grant, Jr., president of the SBICs national association. "Virtually all companies are making plans for it."

Grant explains that to make up for failure of banks, insurance companies, and pension plans to invest heavily, "the SBICs turned to one another for raising money."

• **Equity Capital**—But while joint participation may enable SBICs to enlarge their commitments while keeping each SBIC under the 20%-per-deal limit, it doesn't really solve the essential difficulty—the shortage of capital. That's why many SBICs are now turning to the equity route of raising money.

Under the present law, the advantages are obvious. For one thing, investors in an SBIC may deduct any losses from ordinary income instead of treating them as capital losses in figuring taxes. For another, the law exempts from corporate income tax dividends that an SBIC receives through its ownership of stock obtained by conversion of the debentures it purchases from borrowers as part of its lending operation.

But results so far have been mixed. Electronics Capital Corp. in San Diego, Calif., successfully floated an $18-million issue. But Tennessee Investors, Inc., Nashville, had disastrous results, selling only about $100,000 of a $5-million offering. The SBICs are handicapped by their relative newness and lack of glamor—an exception is Electronics Capital's link to the fast-growing electronic field.

III. How They Operate

SBA issued its first two licenses on Mar. 19, 1959, to the Citizens & Southern Bank of Atlanta, Ga., and to the first Midwest SBIC of Minneapolis. Since then, no single pattern has developed for SBIC operations. But several points emerge from BUSINESS WEEK's roundup.

Community interest has played a big role in the formation of SBICs. Of course, some SBICs are out to get everything they can in the way of fees, interest payments, and stock conversion rights in potential money-makers. But many SBICs are just as interested in the collateral benefits that come from sound investments in their own region: this explains the large number of bank offshoots that have entered the field.

• **Special Aims**—In Scranton, Pa., for example, 46 stockholders—including 18 banks—formed the Keystone Small Business Investment Co. last month, with the avowed aim of supplementing existing industrial development programs in seven counties of northeastern Pennsylvania. This area has suffered badly from slumping coal business, and now has a big labor surplus.

Some SBICs also are being set up to help one particular industry or trade. So-Tex Investment Corp. of Alice Texas, for one, was formed to furnish loans to small independent grocers. The organizer, Ira H. Gobble, is in the wholesale grocery business, and he has made seven or eight loans to grocery stores for modernization and the like. Frankford Grocery Small Business Investment Co., Inc., a wholly owned subsidiary of Frankford Grocery Co., a Philadelphia cooperative, has made loans totaling $122,000 to six grocers.

• **Diversified**—Most SBICs, however, run the gamut in their investments. Tennessee Investors, Inc., for example, has made investments in a communications service company, a hospital and clinic, a truck trailer operator, and a land development company.

This diversified investment pattern stems partly from the dearth of investment opportunities—the good ones are few and far between, SIBCs report over and over. This has kept many smart money operators away from the SBIC program, and it's also why some SBA officers are reluctant to ask Congress for more funds.

IV. Speeding Up Growth

Few SBICs have actively sought likely investment prospects. Instead, they have sat back and waited for applications; and many of those applying don't qualify.

Many blame the limited funds at the disposal of SBICs for this attitude. As one SBIC man put it, "We can lend enough to the very small business with mediocre growth prospects, but we don't have enough for the small business with explosive possibilities."

Herman Mosher, secretary of Milwaukee's Badger SBIC, echoes this complaint. As things are going, says Mosher, SBICs won't make themselves felt for at least three to five years. George I. Emery, treasurer of the First SBIC of New England, says "We're in no hurry to make loans. We're in this to a great degree as a research project. We don't care if it takes five or six years to get going."

• **Luring Lenders**—To rush this process, SBIC investors have a number of suggestions. Clearly, many of these serve the SBIC more than they do the borrowing company. But some investors argue, as one bluntly put it: "If the purpose of the program is to attract lenders, then you've got to make it worth our while."

Harold L. Mosse, Jr., executive vice-president of Western SBIC, San Rafael, Calif., for one, thinks an SBIC's investment should no longer be restricted to loans or purchase of convertible debentures. He thinks an SBIC should be permitted to buy common stocks and warrants.

Harry L. Schein, vice-president of New York's Small Business Capital Corp., argues for a three-year minimum, instead of the present five-year minimum, on the length of direct loans.

• **Self-Help**—Undoubtedly, these moves would lure more lenders, particularly since the immediate profits in an SBIC, even with its tax benefits, are not huge—though this is offset by the possibility that an SBIC may acquire the common stock of a few real growth companies at a pre-boom price.

SBIC directors, however, aren't too sure such changes would in the long run help promote the small business program. They would rather see the SBICs try to develop themselves more, before seeking further government aid.

For a closer look at how one SBIC is attempting to do just that, turn to page 49.

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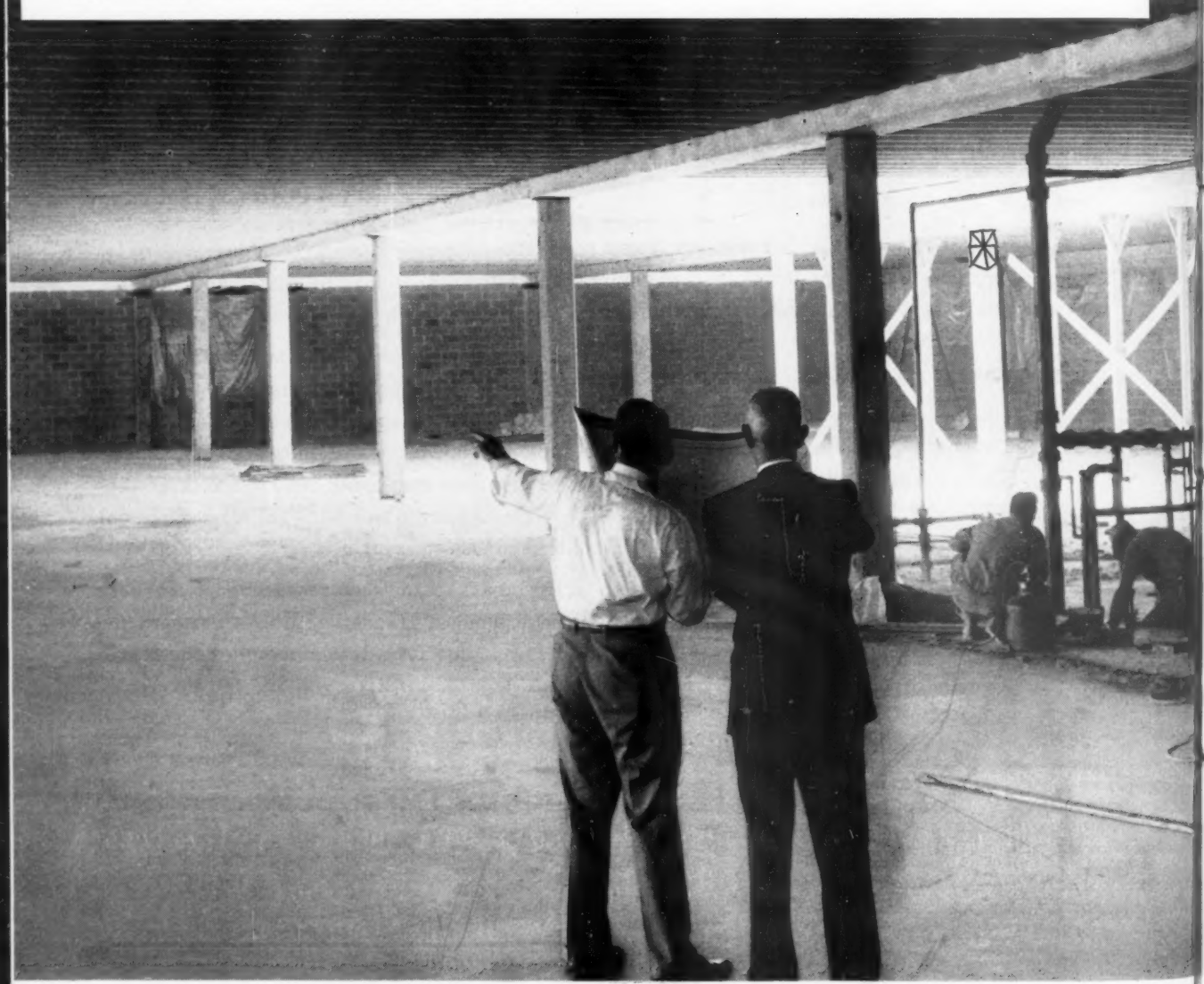
"...and that's the expansion wall."

North Carolina industry has a unique symbol in its "temporary wall" legend. Leading industrialists—including Cannon, Cone, Chatham, Hanes, Reynolds, James B. Duke and Spencer Love—learned to build their factories with three walls of brick and one of wood. Expansion was that fast. These industrial pioneers are still pushing back that fourth wall to expand* at accelerated rate. For instance, current investment of $27½ million will double production for Hanes Hosiery.

And new names from among the "great" in industry are continually being added in North Carolina, where they become a part of the popular business legend that they must build a plant with one temporary wall because expansion will come that soon. Du Pont, Westinghouse, Pittsburgh Plate Glass, Yale & Towne, Swift, Armour, Gerber, Chemstrand, Douglas Aircraft, and scores more are busy pushing out temporary walls. Smaller industries are doing the same thing! In 1955 Kearfott began making precision components at Asheville; last year they added 450 employees, more than doubling their original number.

If you want ivy to grow on your fourth wall, skip North Carolina. If you are ready for a growth that will keep pushing your fourth wall back, you can communicate in confidence with Governor Luther H. Hodges, Chairman of The Board of Conservation and Development, Raleigh, North Carolina.

**Within-state industry expansion since 1955: $463,107,000*



NORTH CAROLINA

An SBIC Thrives on Electronics

One of the first and biggest small business investment companies, Electronics Capital Corp., has launched an ambitious program.

San Diego's Electronics Capital Corp., one of the first and the largest small business investment companies (page 43), cites three important principles for the profitable operation of an SBIC:

• First, there should be substantial paid-in capital—and this means a public offering of stock.

• Second, the company's investment scope should be national, not merely regional.

• Third, and most important, the SBIC should specialize in a field where it can offer expertise—in ECC's case, in the electronics industry.

These principles establish ECC as something special among the new group of SBICs formed to help small business. Many SBICs would agree in part to one or two of them, but few, if any, would agree wholly with the San Diego SBIC. Not that their aims are different: All SBICs are interested in making profitable investments. But, in ECC's eyes, its methods will bring bigger rewards both to itself and to the companies it invests in.

• **Special Banker**—In effect, ECC is an investment banker of a specialized sort—concentrating in small electronics companies. It is taking advantage of SBIC legislation, but even if there were no program, ECC could conceivably exist.

From its beginning in June, 1959, ECC has tried to stick by its principles. In line with its drive for size, it started with a big splash, by offering 1.8 million shares of common stock to the public at $10 a share. This week, the stock traded at $27 a share.

• **Bigger Stake**—ECC's founders, Pres. Charles E. Salik and Executive Vice-Pres. Richard T. Silberman (picture), felt that it was out of the question to start with the minimum $300,000. If they did, the company would not be in a position to offer prospective client-companies enough funds to do an adequate building job. At the same time, with only a small amount of funds they could not hope to assemble the kind of experts they wanted.

So they decided to raise a big stake—at the same time, they decided to do it themselves, rather than through the government. Proceeds from ECC's initial stock underwriting totaled about $16.5-million, and ECC has been wheeling and dealing ever since—concentrating in the electronics field it knows best, but willing to range the country to find sound investment opportunities. So far, it has committed about $4.5-million to seven electronics companies—two in New York, another in Texas, the rest in California.

Electronics Capital, though, has not sat back waiting for investment chances. Its staff is constantly scouring the electronics industry for prospects. To be sure, it has made only seven investments to date—but it has turned down many more companies than it has accepted.

• **The Men Who**—Like many SBICs, ECC has backers who are well-equipped for their job. Salik and Silberman are both electrical engineers turned entrepreneurs and managers. Salik comes from a wealthy Texas family, but has made millions of his own operating radio and TV stations. He also is president and founder of Electronics Investment Corp., a $32-million mutual fund, which has compiled a good investment record.

Silberman is a former president of the Kin-Tel Div. of Cohu Electronics, which he guided to sales of $8-million from $100,000.

More than most, the founders have gathered around them a talented assemblage of financial, legal, and electronic specialists. Two of its advisers, for instance, are Dr. Neil Jacoby, dean of the Graduate School of Business Administration at the University of California, Los Angeles, and Dr. Joseph M. Petit, dean of Stanford University's School of Engineering.

• **Capital Plus Brains**—ECC employs this staff as its chief tool in marketing its capital and electronic expertise. As it sees it, its job is to supply both



FOUNDERS of Electronics Capital, Pres. Charles E. Salik (seated) and executive Vice-Pres. Richard T. Silberman, have raised a lot of money for investment on their own.

chemicals on the move...in petroleum

Truly exciting is the prolific field of petroleum refining. In addition to new high-octane fuels and improved lubricants, many new plastics, paints, dyestuffs, detergents and drugs owe their origin to petroleum. Rapid developments have brought new demands on the petroleum industry's chemical suppliers . . . created new challenges.

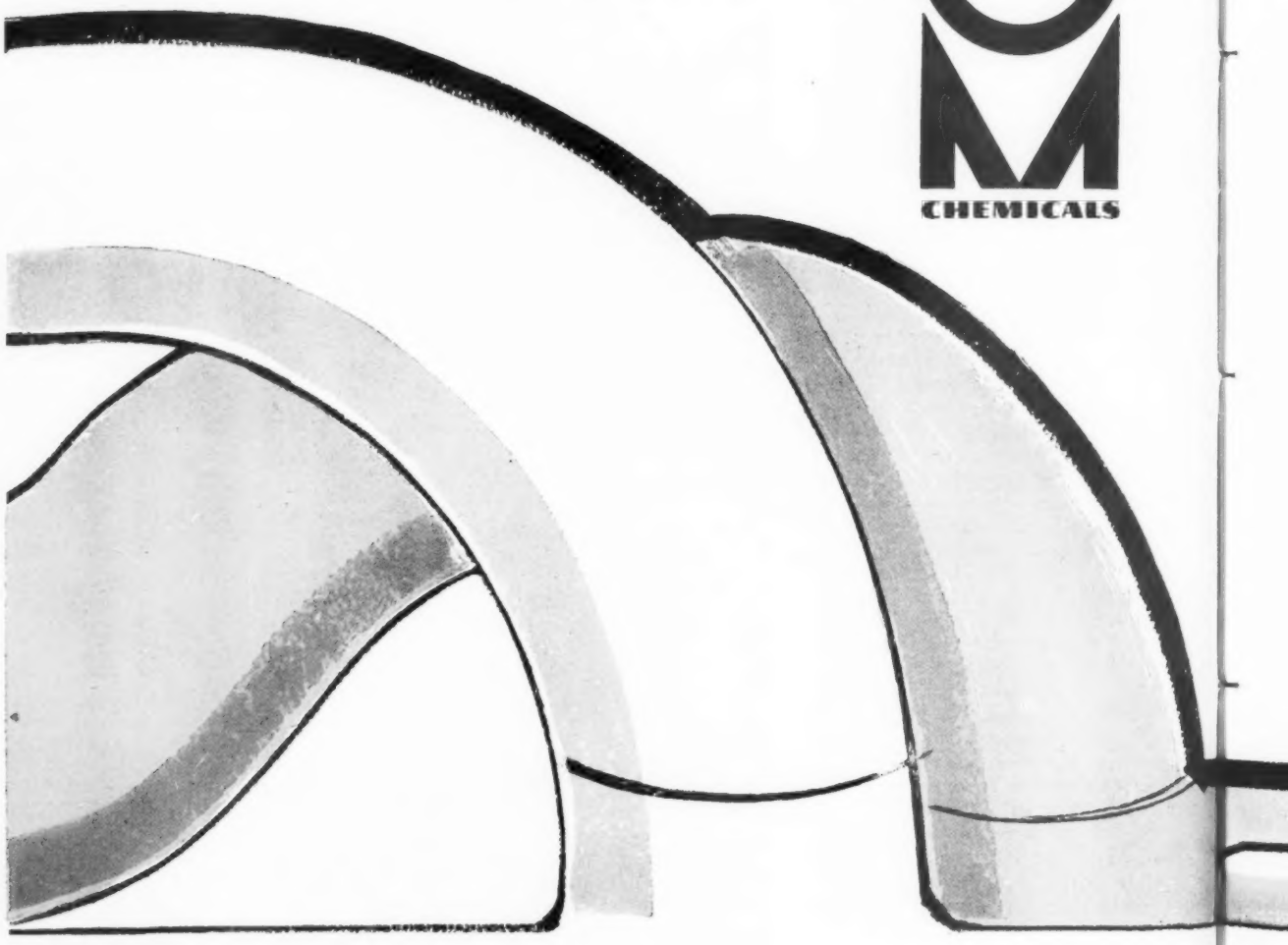
To assure refiners and processors of the availability of chemical raw materials regardless of changing market conditions, new product development or the requirements of expansion, Olin Mathieson is on the move. To keep pace we are stepping up production of acid, alkalies, chlorine, polyols, oil additives, ethanolamines, and coordinating our planning and production with the demands of our consumers.

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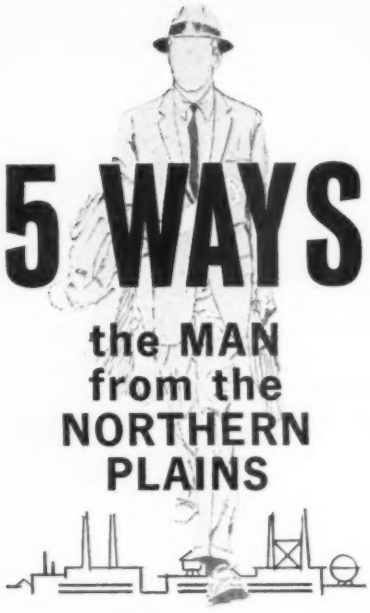
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. . . in ECC's view, an SBIC should try to 'optimize' a company's situation in the early stages of growth . . .

(STORY on page 48)

capital and brainpower, and it feels it gets the best results this way.

A number of SBICs take a different position. They feel that their function is to supply long-term capital—and perhaps some policing of inexperienced management—but that the chief woe of small business is lack of financial acumen. ECC doesn't agree.

Elliott Lewis, an assistant to the president, points out that small growth companies could have any number of weaknesses. Some have made technological breakthroughs, he says, but don't know how to market their products; others, he goes on, have difficulty maintaining quality control; still others haven't planned ahead for expansion. Lewis says that ECC's program is broad enough to cover all these contingencies.

• **Helping Hands**—In ECC's view, an SBIC should try to "optimize" a company's situation in the early stages of its growth and steer the company clear of the pitfalls of having to show profits early, or engaging in a premature underwriting, sale, or merger. "Our aim," says Salik, "is not to take management out of the hands of the people who run the company—that's the way you lose incentive—but to help them. They can profit from our experience, and buy our mistakes."

Electronics Capital insists that the companies it invests in see this point before a deal is made. It engages in a rigorous examination of candidates and draws up a whole plan of recommendations. Only after there's a meeting of the minds, as one ECC man puts it, is the deal closed.

• **Consultant Status**—Under the terms of the deal, ECC insists that the smaller company purchase management consulting services from it. The charges, though, barely cover costs; they range from $500 to $1,000 a month; so there's really no profit if ECC's consultant has to travel any great distance. But the arrangement gives ECC a big say in operations, helps it protect its investment and see that it prospers. Right now, for example, it's arranging a merger between one of its borrowers and a company that closely fits the client-company's needs.

The fact that ECC keeps a close hand in its companies could lead to other advantages. One that ECC is exploring is group buying of supplies and equipment, and team bidding for potential business. ECC feels it will be in a unique position to help choose among its clients the best-qualified members to go after different contracts of a systems nature.

All the time, Electronics Capital is looking for companies that will bring it big gains in the years ahead. It's not interested in turning a fast dollar. Instead, it seeks companies in specific areas of the electronics industry for which the SBIC sees big growth. (One of the areas it intends to stay out of is the semiconductor field, which it feels is overcrowded.)

This search for long-term gains is the reason why ECC sticks mostly to convertible debenture investments, rather than direct loans. Many SBICs share Salik's view that direct loans are not too profitable; the spread is too thin between what most SBICs pay for their money, say 5% to a little over 6%, and what they can get in return, say 6½% to a little over 8%. Like Salik, they would much rather take debentures and have a stake in a few potential growth companies—if the companies are willing to give up part of their ownership.

• **Sizable Interest**—An analysis of ECC's portfolio shows that the stake ECC demands is a sizable one. For example, from Potter Instrument Co., Inc., of Plainview, N. Y., it took $750,000 in 10-year debentures, convertible to 33⅓% of the common. General Electrodynamics Corp. of Garland, Tex., sold $400,000 in 7-year debentures, convertible to 47% of the common; Vega Electronics Corp. of Cupertino, Calif., $300,000 in 6-year debentures convertible to 68% of the common. All the debentures, by the way, bear 8% interest.

ECC maintains, though, that it does not want to take majority position in its client-companies. It says the high percentage of conversion rights reflects the fact that the companies are essentially new and the risk is greater. In any case, ECC men note, the only way the SBIC can make a big profit is to sell its holdings—preferably when the smaller company goes public.

• **Suggestions**—As far as the over-all program goes, Salik is quite happy with it as it stands. He says that ECC can operate effectively within the present act, whether amendments are made or not. But he does propose three changes:

- Formation of a bad-debt reserve, which would be tax-deductible.
- Permission to offer stock options to key personnel.
- Creation of a Federal Small Business Reserve Bank. This recommendation comes from Dr. Jacoby, who describes the SBIC as a "fourth banking service," following the earlier land banks, farm and home banks, and commercial banks. **END**

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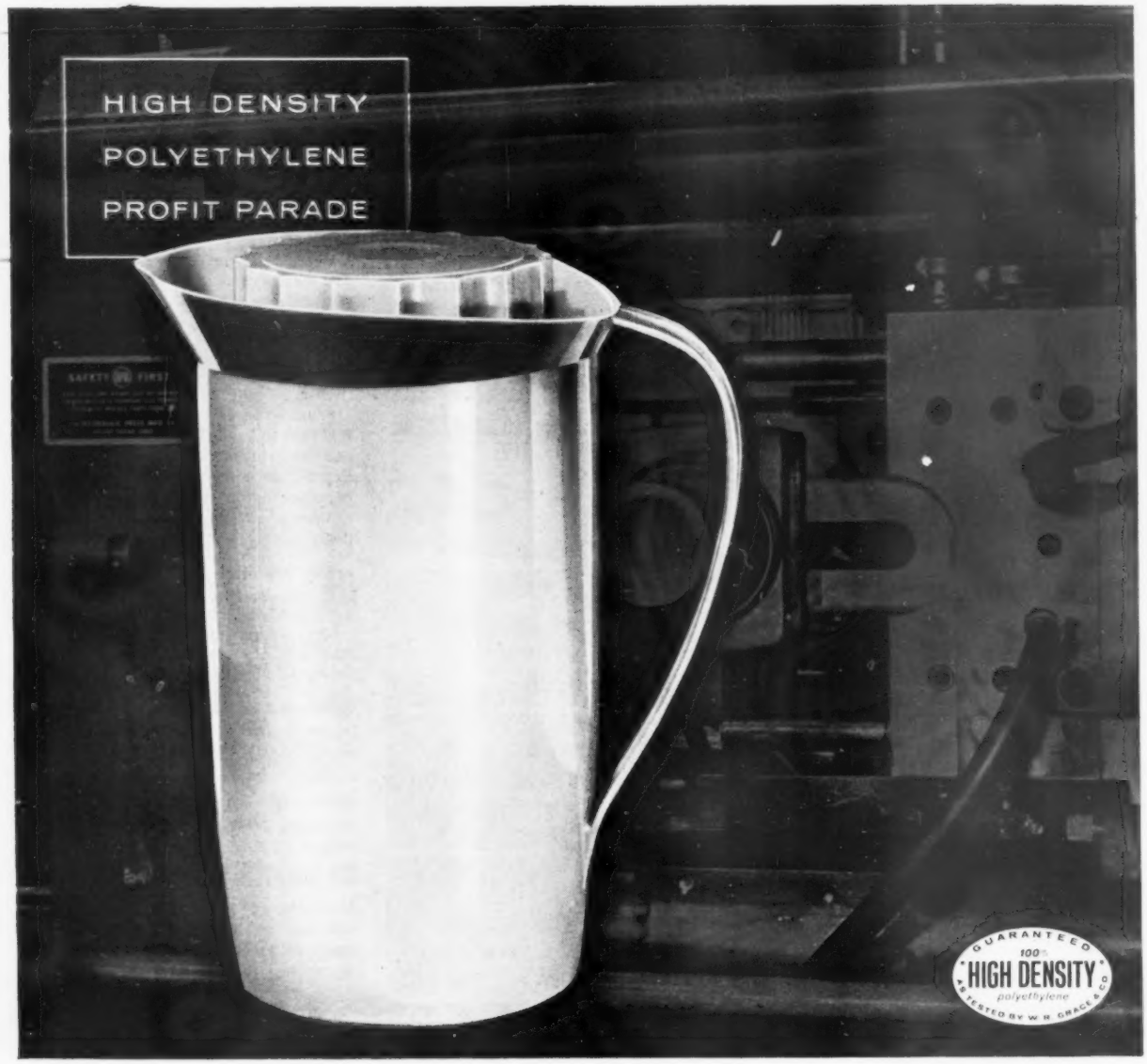
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The finance pattern

Rate Ceiling Compromise

For almost two years, the U. S. Treasury has been unable to sell any new long-term bonds. This was because outstanding long-term Treasury issues sold to yield more than 4¼%, the legal maximum that can be placed on any new government issue with a maturity longer than five years. The Treasury could have marketed bonds at a discount, but it chose not to take this back door out. Instead, the Administration requested Congress to raise the ceiling.

This week, without the help of Congress, Treasury Secy. Robert B. Anderson was able to sell a long-term issue, priced at 4¼%, because of a sharp drop in outstanding interest rates. Undoubtedly, Anderson recognized that Congress may take this move as an excuse to maintain the ceiling, but he had pledged that the Treasury would sell long-term bonds whenever economic conditions—and the market—permitted, and he lived up to his word.

• **Little Choice**—Debt management has not been a very useful weapon over the past few years. With the ceiling in effect, the Treasury has been unable to use the debt in true contracyclical fashion. This job has been done solely by the Federal Reserve, and while monetary policy has been extremely useful at times, even the money managers say that they cannot do it all.

A case, in fact, can be made that monetary policy must be tighter than conditions call for as long as debt management is of no real use. This suggests that if debt management can be utilized effectively, monetary policy could be eased somewhat.

• **Democratic View**—This possibility escapes the Democratic opposition in Congress who refused to yield on the ceiling. They argue that the public has been saved millions of dollars in payments on the debt by their efforts. And they say that the Administration's request should be buried because interest rates are now back to normal.

This I-told-you-so attitude is both premature and harmful. The Treasury still needs maximum freedom if it is to manage the national debt with any effectiveness. Over the past year, the interest rate ceiling has forced Anderson to market short-term obligations at increasingly higher interest rates and in an atmosphere of near crisis. This was not only expensive but also posed a threat of inflation. And there is no assurance that we will not see a return of those conditions.

• **Academic Barrier**—The opposition refuses to consider this possibility. They insist that there will be no return to higher rates or, if there is, that the Treasury will be able to scrape through again.

But if rates were artificially high, then there should be no logical objection to raising the ceiling. For the Treasury naturally wants to do its financing as cheaply as it can.

• **Possible Compromise**—Last summer, Congress would have been willing to lift the ceiling if the Administration had agreed to a resolution suggesting that the Federal Reserve follow a more flexible monetary policy. Anderson—and Fed Chmn. William McC. Martin—felt that Fed policy should not have been an issue and considered the resolution too high a price to pay. Congress retaliated by keeping the ceiling on interest rates. But Anderson is now ready to accept a compromise deal—one that would allow the Treasury to exceed the ceiling for some, but not all, of its financing.

Certainly it would be wrong to wait for another crisis. Legislation adopted under crisis conditions often needs repairing once the worst is over. Congress now has an opportunity to re-examine the situation without the pressure of a crisis. If it uses this opportunity, it will realize that debt management cannot be effective as a stabilizing weapon so long as it is hampered by an archaic and unrealistic barrier.

In Finance

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C.I.T., American Express Team Up In Overseas Financing Venture

C.I.T. Financial Corp. and American Express Co. announced this week they had embarked on a joint venture to engage in consumer and industrial financing operations overseas. **The new company will start off with an initial capitalization of $5-million, and will begin operations in England and West Germany.**

The new move is typical of increasing interest among U.S. companies in extending credit facilities abroad: Corporations have broadened their dealer credit plans abroad. A few months ago, Beneficial Finance Co. opened a consumer credit office in London. And other credit companies—including some factoring companies—are planning similar steps.

C.I.T. and Amexco's new venture, though, appears to be an ideal setup. C.I.T. is the nation's largest independent consumer and industrial finance company, and Amexco, with approximately 400 offices around the world, has extensive background in foreign operations.

But the move represents a big change in policy for C.I.T. The company had withdrawn from foreign operations after it was badly burned in England prior to World War II. Now it appears convinced that it can succeed in a foreign operation.

• • •

Branch Operations in New York City Opened Up to Foreign Bankers

Under a law passed by the New York state legislature last week, foreign banks will be permitted to set up full-fledged branches in New York City—but only if reciprocity is extended to U.S. banks that seek similar branching privileges in foreign countries.

At present, 27 foreign banks maintain agencies in New York City that are not allowed to accept domestic deposits. **The new law permits branches to hold deposits, as well as to participate in most other phases of commercial banking.** At least three European banks say they may convert their agencies to branches, and the Banco Popular de Puerto Rico, San Juan, is said to have already laid the groundwork for a branch application.

The reciprocity measure was a last-minute addition to the bill. It was aimed chiefly at forestalling several South American countries that were reported to be considering reciprocity laws themselves that would have, in effect, barred U.S. banks from their territories.

New York banks, meanwhile, are making plans to take advantage of the new state law extending branching privileges, effective July 1 (BW—Mar.26'60,p32).

Franklin Square National Bank of Long Island, which had spearheaded the opposition to the law, says it is prepared to form a bank holding company and expand into Manhattan if the city's big commercial banks invade its home grounds.

Franklin prefers the holding company method of expansion, rather than direct branching, partly because in the latter case its status as a "country" bank probably would be changed to that of a "reserve city" bank. This would mean it would have to hold a larger portion of its demand deposits on reserve, reducing its lending power.

• • •

Philadelphia Mutual Fund Decides To Be More Than a Silent Investor

Rittenhouse Fund, a Philadelphia mutual fund with assets of $5.5-million, has broken away from the orthodox institutional attitude in voting corporate shares. At the fund's annual meeting last week, the trustees asked for and got explicit shareholder approval to "vote the shares owned by the fund for or against management and join with other shareholders in exercising their best judgment to protect an investment."

Traditionally, institutional investors steer clear of any open dispute with corporate management. If the management fails to live up to expectations, the institutions usually sell out—as discreetly as possible. **But Rittenhouse trustees believe that there are degrees of disagreement with management, that selling a stock is often too extreme.**

Fund officials think their new policy will "enable them to assume a more positive ownership role and better fulfill their fiduciary position."

The fund's change of mind came in the wake of a near-proxy fight a few months ago with one company in which Rittenhouse had invested heavily. Rittenhouse lined up with other large shareholders against the management's policies. But a showdown proxy fight was avoided when management stepped down voluntarily. Says a spokesman for the fund: "We felt that something like this could come up again, and we wanted to be ready."

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Finance Briefs

One of Wall Street's worst-kept secrets was publicly aired this week: **Ogden Corp.** announced it would spin off **Teleregister Corp.,** maker of electronic data-processing systems and stock quotation boards, which it purchased in 1953. Under the plan, Ogden would distribute to its stockholders its Teleregister common on the basis of one-half share of Teleregister for each share of Ogden held. Ogden's shares traded this week at $23.

Bigelow-Sanford Carpet Co., seeking its first diversification out of the carpet and textile field, said it has acquired an option to purchase a majority interest in Crestliner, Inc., a large manufacturer and distributor of outboard motor boats (annual sales volume: more than $4.5-million). Full ownership would cost the textile company $2.25-million. Within the last two months, two other boat companies—Chris-Craft Corp. and Owens Yacht Co.—have been spoken for by diversifying buyers, and others are up for sale as the industry shakes out.



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LABOR

Office Automation Hits UAW

● **Auto Workers white-collar local bids for Chrysler office employees as the union looks to its future.**

● **With the number of production workers dropping, the industrial union must recruit more members in offices or face sharp losses of strength and prestige.**

● **But mechanization is cutting and shifting white-collar jobs, too, in a way that causes problems for UAW.**

The National Labor Relations Board was asked this week to poll some 1,000 workers at a Chrysler plant near Detroit, to ask if they want to be represented by the United Auto Workers.

Ordinarily, such a routine petition would hardly warrant attention of anyone not directly involved. But this time the local bidding for members happened to be Local 889, a white-collar local that represents office workers in Chrysler auto plants.

• **Significance**—What happens in Local 889 membership bids has a double significance these days.

First, of course, it reflects how well UAW may be doing in its drive for more white-collar members (BW—Feb. 20'60,p133).

Second, and of more personal concern to the local's Pres. Wallace Webber, it may indicate how well Local 889 is going to be able to accommodate itself to a new and increasingly severe form of one of union labor's oldest problems.

Automation—or perhaps mechanization is a better word—has rolled right through the factory walls and into auto industry offices. "Three years ago," says Webber, "Local 889 had 5,000 members. Now we have 4,000, and the loss mostly is due to the inroads of automation in offices."

• **How It's Hit**—Webber cites one dramatic example: Chrysler used to have 200 payroll clerks until it turned the preparation of payrolls over to a computer. Now the entire job requires about 60 people.

Chrysler for several years has been keeping inventory records by computers. Its machines now have things down so pat that there is available time for other work. A union official says resignedly, "The trouble is, these machines don't get tired or have to be paid overtime rates."

Chrysler is now working on ways the machines' spare time can be used in accounting processes. "In the long run," Webber says, "this may eliminate half our jobs."

Webber is not trying to be an alarmist, nor is he saying that, in the long run, Chrysler will fire half its office workers. The relationship of employment levels to mechanization is not that simple in any area, and the complexity of the relationship is compounded in considering office procedures.

• **Changing Status**—You can prove almost any point with auto industry employment figures, and one thing that stands out right at the start is that the ratio of office workers to production workers has been rising. Ten years ago, 15% of auto industry employees were not classed as production workers. Last year, 20% were in non-production jobs. This was due to a decline in the number of production workers along with an increase in the office force.

In 1959, the average number of non-production workers in the industry was 158,000. In 1950 the average was 123,000, but it was up to 157,400 by 1955 and rose as high as 161,400 in 1956. Chrysler and Ford, particularly, began reducing their white-collar forces in 1958.

Yet there were only 3,400 fewer people in offices in 1959 than in 1956, and paperwork doesn't seem to have been cut back. The reason was explained simply a few years ago by Malcolm P. Ferguson, president of Bendix Corp.:

"Automation in the office does not mean that we shall do the same things with machines that are now done with human labor. The function of the office is to collect, store, interpret, and report on information. With superior methods for doing these things, it is likely that business firms will collect and store more information, and analyze it better, and act on it faster."

Now, with superior methods available to deal with information, the people are being used for other things. Office mechanization makes it possible to do more things and to do new things with the same number of people. With machines to handle the repetitive work, business has people for tasks it never before thought possible.

• **Different in Plants**—So, if Chrysler's mechanization of accounting really does take away work of half of Webber's members, as he fears, the outlook is for most employees to be assigned other jobs with the corporation. While no one knows for sure, the general belief is that at least up to now the man-hours saved by office machines have been covered by normal employment attrition and new jobs; they haven't really wiped out jobs permanently.

For Local 889, the trouble is that workers who lose jobs to office machines may be shifted to new jobs outside the local's jurisdiction—and lost to the local.

That's where mechanization in the office differs so markedly from mechanization in the factory. Last year, the average production employment in the auto industry was 573,600 and 6.7-million vehicles were produced. In 1956, vehicle production was 6.9-million, and the average production employment was 648,500. That means about 75,000 workers—nearly all poorly-educated, unskilled hands—have been weeded out of auto factories, and the chances are all against their ever being needed again.

That was a normal, if unhappy, stage in the necessary development of new mechanical means of doing things in plants in order to get a higher and more efficient volume. Plants needed men to pull, lift, and push things for more than 100 years, and it was these men who were out of work when conveyors and transfer devices took over.

Office automation is a different situation entirely. Offices have never needed unskilled, easily dispensable people to do the sort of inventory control that a roomful of data-processing equipment handles—for the reason that many rooms full of people couldn't do it in a span of time that would be acceptable.

That's why Local 889 and the entire UAW have such a hard row to hoe in organizing—and holding—office workers. UAW grew strong by organizing masses of people in manufacturing industries. To stay strong, it thinks increasingly in terms of organizing the new majority in the country—the people who work outside the plants. But you seldom find 20,000 or 30,000 of them in one place as UAW organizers once found the masses of production workers in auto plants. While the amount of work passing through offices is increasing enormously, the masses of machinery there make it unlikely that UAW will ever find masses of men and women there to organize. END



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FREE-FOR-ALL at pithead at Miike coal mine in Kyushu, Japan, involved clubs, bamboo poles, other weapons. One was killed.

Union Battle, Japanese Style

Leftwing coal miners fight it out with rightwing group. Troubles come as Japanese mines begin to mechanize.

One morning last week, 8,000 Japanese coal miners split into two opposing mobs and fought at the pithead of Mitsui Mining Co.'s Miike mine (pictures) over whether or not anyone should go back to work after a two-month lockout and strike.

While 1,500 police tried vainly to restore order, the miners flailed each other with bamboo poles and wooden swords and threw firecrackers and pepper back and forth. There was no work that day, and the free-for-all left 34 seriously wounded. Continued rioting has resulted in one death so far.

The labor dispute at the Miike (Three Pools) mine has been increasingly bitter since the company announced a lockout on Jan. 23, and the union retaliated by announcing a strike. It came to a head when a group broke away from the left-leaning TANRO, federation of coal miners, and formed their own union. The new group is dedicated to a wages and hours trade union position as against the intractable political line of TANRO.

• **Showdown**—The clash at Miike, which is on Kyushu, southernmost of Japan's main islands, is regarded by the Japanese press as a final showdown between total capitalism and total labor, a class war that suddenly turned into a civil war between leftwing and rightwing unions. It's all wrapped up with national political and economic issues, and the whole country is taking sides.

The mine's 15,000 workers belong to a local of TANRO, which is affiliated with SOHYO, Japan Federation of Trade Unions. This federation includes many non-Communist groups, but it is dominated by extreme leftists and is the target of a rival federation called ZENRO.

ZENRO is smaller but still powerful. It is strongly anti-Communist, and it has announced its support of the splinter union at the Miike mine. TANRO, meanwhile, has asked the government's labor mediation board to step in before more violence breaks out. But the mine owners have refused mediation. Both TANRO and the zaibatsu (ruling clans) in the mining industry are politically powerful, leaving the government on dead center.

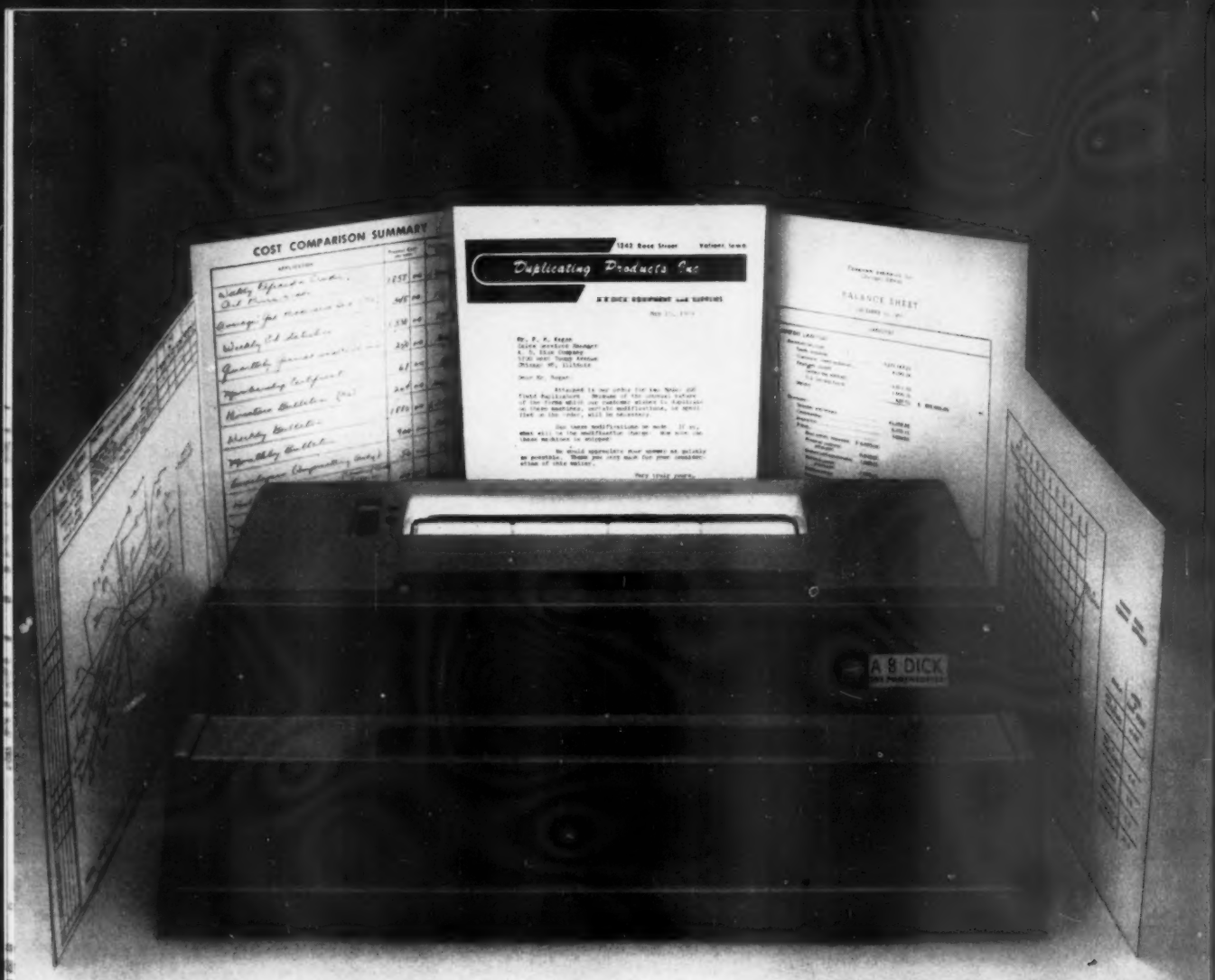
The government, officially, has taken a hands-off line toward the labor-management clash at Miike. But it also has warned that violence must be halted.

• **Sick Industry**—The basic political-economic issue is the poor health of Japan's coal industry. As in the U.S., Britain, West Germany, and France, mine operators are up against rising competition from petroleum. They can compete only by mechanizing, cutting production costs. The industry talks of eliminating 100,000 jobs—about half the labor force in the mines—in the next three years.

This would be drastic at any time, but with Japan's wartime baby boom beginning to be reflected in the labor market, it creates an intolerable unemployment problem.

• **Test Specimen**—Miike is a natural battleground for political and economic ideas. It is the largest colliery in Japan; its coal is of an unusually high grade by Japanese standards, matched by only one other mine. It has been a raw materials base for the powerful Mitsui zaibatsu for nearly 100 years, producing about half the company's coal. So it is naturally important.

Even in Japan's unconventional trade union setup, the Miike mine is unusual, now that its workers have taken almost equal and opposite political and social stands. The leftwing union is led by extremely leftwing but anti-Communist



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RIGHTWING mine union, breaking away from old local, announces its formation on Mar. 16 by putting up public notices.



HELICOPTER chartered by old union at about $140 an hour broadcasts strike leaflets.



LEFTWING union, with clenched-fist salute, calls for strike at a meeting near the mine entrance.

Socialists, headed by Prof. Itsaro Sakisaki of Kyushu University.

Last summer, Sakisaki created a nationwide stir with a memorandum blaming the Socialists' decline in power on the fact that it is no longer a class party. He insisted that the party must move further left—when most of the party leadership, following German and British cues, thought it should be moving toward the right.

There's an intimate connection between Socialists of all factions and the trade unions, not only because of ideological ties but also because the labor federations are the principal source of campaign funds for Socialist members of the Diet. The outcome of the Miike mine fracas, therefore, has an immediate bearing on Japanese politics.

Political agitation is considered partly responsible for the Miike mine's poor performance as a producer of coal. Working conditions at Miike are rated the best in the industry, with shorter hours and higher wages than other mines. But productivity is the lowest in Japan. The national average is about 22 tons per man per month (a U.S. miner averages more than that in two days), but Miike's productivity has sunk to around 18 tons per man per month.

• **Raising the Issue**—Last summer, Mitsui announced a program for "rationalizing" the mine's operations, notably by firing 2,500 miners, electricians, hod carriers, and construction men. Under a 1956 contract (which came out of a 113-day strike), TANRO, of which the Miike local is the strongest unit, had the right to veto any firing, and it did so.

Mitsui then proposed that the workers voluntarily resign, with special retirement allowances. But it insisted that 300 union militants must be among those who retired. The union agreed to condone the voluntary resignations but balked at letting the company name the volunteers. That's when Mitsui closed shop.

• **Battle Formation**—Nikeren, Japan's management federation, immediately promised to back Mitsui Mining to the hilt. Other companies of the Mitsui group came to the company's aid, the Mitsui Bank with extra loans of 3.5-billion yen (about $10-million). Even rival mineowners pledged to supply Mitsui's customers with coal until the strike could be broken.

On the other side, TANRO voted to raise a relief fund of 600 yen from each of 15,000 members, so it could pay the strikers' families 10,000 yen per month (pre-strike wages averaged 25,000 yen, or about $70). SOHYO, the trade union federation, also called on its member unions to make special strike



9:47 A.M. Customer phones order to District Office.



10:01 A.M. Customer's tape for the item is pulled from file. There are 10,000 customer tapes in a typical District Sales Office. Only variables are typed on re-orders.



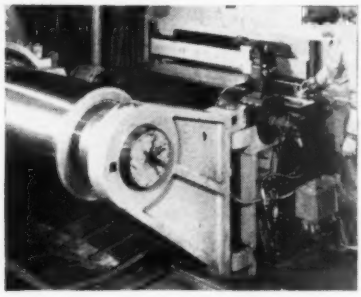
10:30 A.M. The Cleveland Teletype Switching Center automatically relays the order to the proper service center.

HOW REPUBLIC'S NEW "MINUTE MAN"

How Republic's High Speed Communication System Helped Three Customers



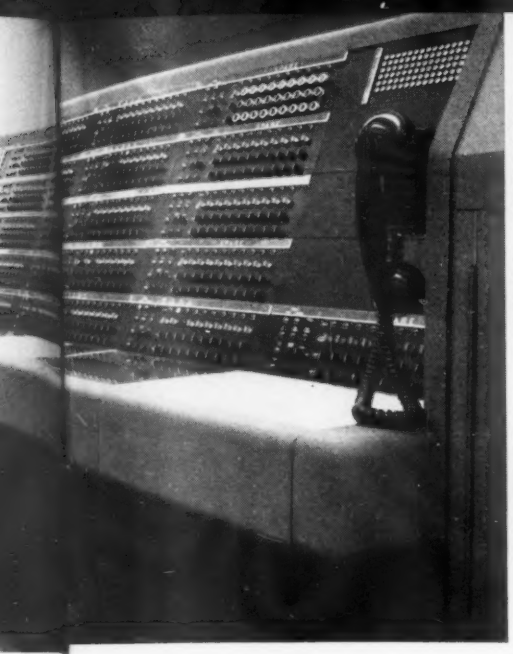
Tulsa ordered at 10:00 A.M. and Chicago shipped at 5:00 P.M. the same day. A customer's inquiry from Tulsa for oil country casing and tubing was teletyped to Cleveland at 10:07 Cleveland located the material in stock at the Chicago mill and answered the inquiry at 10:15. Forty-five minutes later the order was confirmed. The order was shipped from Chicago by 5 o'clock that same day. Just one example of how Republic's sales and production teams are keyed to solve customers' delivery problems.



"Need stainless steel in quantity, and need it in a hurry", a sink manufacturer phoned our Chicago Distributor. Approximately forty-five hours after the phone call, Republic's Massillon mill had the order of ENDURO® Stainless Steel rolled, slit, shipped, and in the customer's plant. An unusual instance? Perhaps, but it does show again, how Republic's high-speed communication system is geared to keep pace with industry's growing demands for service and quality.



From inquiry to delivery within two days. A Detroit forging customer needed hot rolled bars quickly, to fill an order. Within minutes after the inquiry, the Cleveland service center located steel billets in semi-finished form at the Buffalo steel plant. Result—the Buffalo mill received the order in detail the same day of the inquiry. The bars were rolled that night and shipped the next day. Now, knowledge of Republic mills is concentrated and available to customers within minutes.





10:38 A.M. A team of service center "Minute Men" quickly selects the right mill to satisfy the customer's specified quality and delivery.



11:30 A.M. Mill receives order containing metallurgy, shipping instructions, and all details.

SERVICE SPEEDS STEEL DELIVERIES

Fast delivery is always a point of competition among steel mills. Republic now applies automation to cut order processing from days to minutes: it reduces paper work and production time—speeds delivery. This increase in service gives Republic customers another competitive edge in today's market.

From the first click of the teletype key, Republic's sales and production teams go to work. Within a matter of seconds, customer orders can be sent from any one of 22 district sales offices to the Cleveland Switching Center. Here orders are relayed automatically to any one of six service centers where a team of Republic "Minute Men" check specifications, confirm orders, and determine mill schedules. Once the order has been processed at the service center, it is relayed automatically to the proper mill for schedúling—all in a matter of a few hours.

Installed after three years of research and development by Republic, this electronically-automated system has literally revolutionized methods and organization for processing sales orders.

In addition to speedier handling, customer specifications are filed on paper tapes for repeat order use. The possibility of error is reduced and duplication of records eliminated.

"Minute Man" service on steel deliveries is only the first step of a comprehensive program. Research and planning is under way to extend the automatic system of scheduling and processing within the plant. A battery of electronic brains will provide the statistical information needed to plan and control operations more efficiently.

Automation is but one example of Republic's continuous effort to improve customer service.

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World's Widest Range of Standard Steels and Steel Products

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Please send me more information on:
☐ Casing and Tubing ☐ Stainless Steel

Name_____ Title_____

Company_____

Address_____

City_____ Zone____ State_____

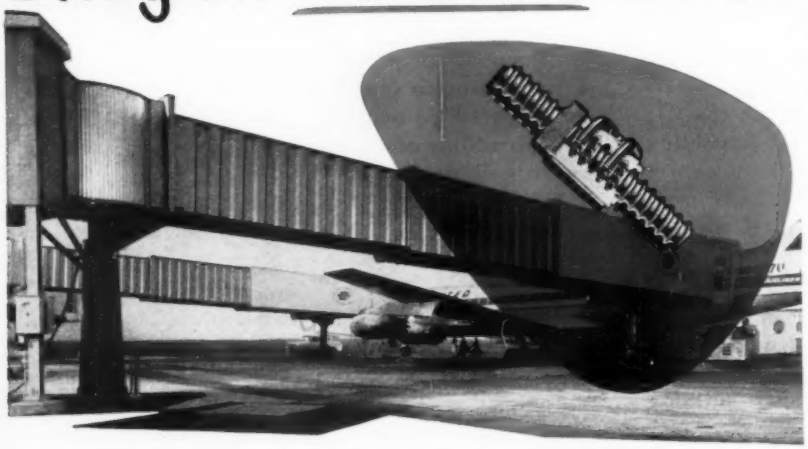
SAGINAW
ball/bearing
SCREW

A rugged Saginaw Ball Bearing Screw is used to raise and lower the new "Jetway" passenger loading corridor, manufactured by P I Steel Corporation in Los Angeles. It's now in operation for United Air Lines at San Francisco and New York's Idlewild Airport. These movable, telescoping corridors directly connect terminal and aircraft. Travelers pass through, protected from wind, rain, fumes and noise.

The Saginaw b/b Screw used here is a standard rolled thread assembly with a B.C.D. of three inches and measuring seven feet in length. The Saginaw Screw is in a motor-driven shaft under the outboard section of the "Jetway" . . . and in seconds, smoothly and accurately matches the floor elevation of the huge corridor to that of the plane.

Airlines specifically avoided hydraulic elevating systems—the Saginaw b/b Screw was selected because it converts *rotary* motion into *linear* motion with *over 90% efficiency*, plus contributing important savings in maintenance and power and providing noise-free operation. The Saginaw b/b Screw may bring these and other profitable benefits to *your* product, too. Details are yours by phoning or writing Saginaw Steering Gear Division, General Motors Corporation, Saginaw, Michigan—*world's largest producers of b/b screws and splines.*

Lifts giant "TRAVELING" corridor



Actuation To Fit Your Individual Requirements
Have been built as small as 3/16 in. B.C.D. and ¾ in. long, as large as 6 in. B.C.D. and 40 ft. long. Larger sizes can be built to your order.

Saginaw ball bearing Screw
WORLD'S MOST EFFICIENT ACTUATION DEVICE

. . . Japan's coal stockpiles have shrunk from last year's glut to 7-million tons . . .

(STORY on page 61)

levies to support the Miike miners.

Storekeepers in Ohmuta City, near the mine, split sharply on the strike-lockout. Some have extended liberal credit to keep the strikers and their families in food and clothing; others favor the company's stand.

• **Union Split**—On Mar. 15, a self-styled "Critical Group" openly challenged the union's leadership. When the local's central committee voted 195 to 69 in favor of the leadership—and the strike—the dissidents withdrew from the union. By last week they had pulled 4,650 members with them, about one-third of the total.

The offshoot, New Miike Coalminers Union, has the support of the 4,000 members of the Mitsui Mining Co. Staff Union, a separate group of white-collar workers. Some local leaders, in fact, charge that the new group is a company union. However, its support seems to come from anti-Communist intellectuals in Tokyo, from rightwing Socialists, and from local union members who are weary of leftist dogma.

The new union asked Mitsui for bargaining rights, and the company replied that anyone who wanted to work could return to the mine last week. The older leftwing union then rallied members to assemble during the night to bar the splinter group from the pithead next morning.

• **How Long?**—There are forces that would seem to prevent any prolonged battling at Miike. Mitsui, for example, talks worriedly of the danger of sabotage in the mine. Perhaps more important, Japan's coal stocks have shrunk from last summer's glut to only 7-million tons, of which 2½-million tons are already delivered to consumers. And cynics say it will be a rare day when Mitsui's competitors deny coal to their own customers in order to supply Mitsui's clients.

Government officials are working feverishly behind the scenes to engineer some sort of settlement. Conservative Prime Minister Nobusuke Kishi and his aids are steering a course between permitting the two unions to battle it out at the mine or backing up their business supporters with police strongarm tactics.

In the fall of 1958, they learned a lesson when they tried to ram a bill through parliament to strengthen the powers of Japanese police. With sour memories of prewar "thought police," Japanese raised such a fuss that it almost brought down the Kishi government. **END**

Will one 2-way radio system design fit both of these companies?



PROBABLY NOT...THEY HAVE DIFFERENT COMMUNICATION PROBLEMS

COMPANY A

Operates three trucks in a five mile radius from a downtown location where there are many radio users.

COMPANY B

Operates five trucks in a twenty mile radius in suburban and semi-rural territory.

AN EFFICIENT 2-WAY RADIO SYSTEM MUST BE ENGINEERED BY AN EXPERT.

No two companies have *exactly* the same communications problem. Even if they operate the same number of trucks in the same locality—chances are their radio systems will differ to provide the most efficient integration with their individual business procedures. ■ Engineering *your* radio system to fit *your* specific requirements isn't a job that can be done as a sideline. It requires the specialized knowledge of highly trained experts who can accept *complete, undivided* responsibility for the performance of your system. ■ This is exactly what you get when you choose Motorola. Only Motorola sells exclusively from factory to you thru full-time factory-employed 2-way radio sales engineers. These experts can engineer your system most efficiently because Motorola has the most complete line of communications equipment available—equipment that has a proven record of reliability. And as for service, Motorola can provide fast, nearby maintenance to assure you of continuing peak performance. ■ No wonder the nation's most critical buyers of 2-way radio—police and fire departments, utilities and transportation services—specify Motorola more often than all other makes combined.

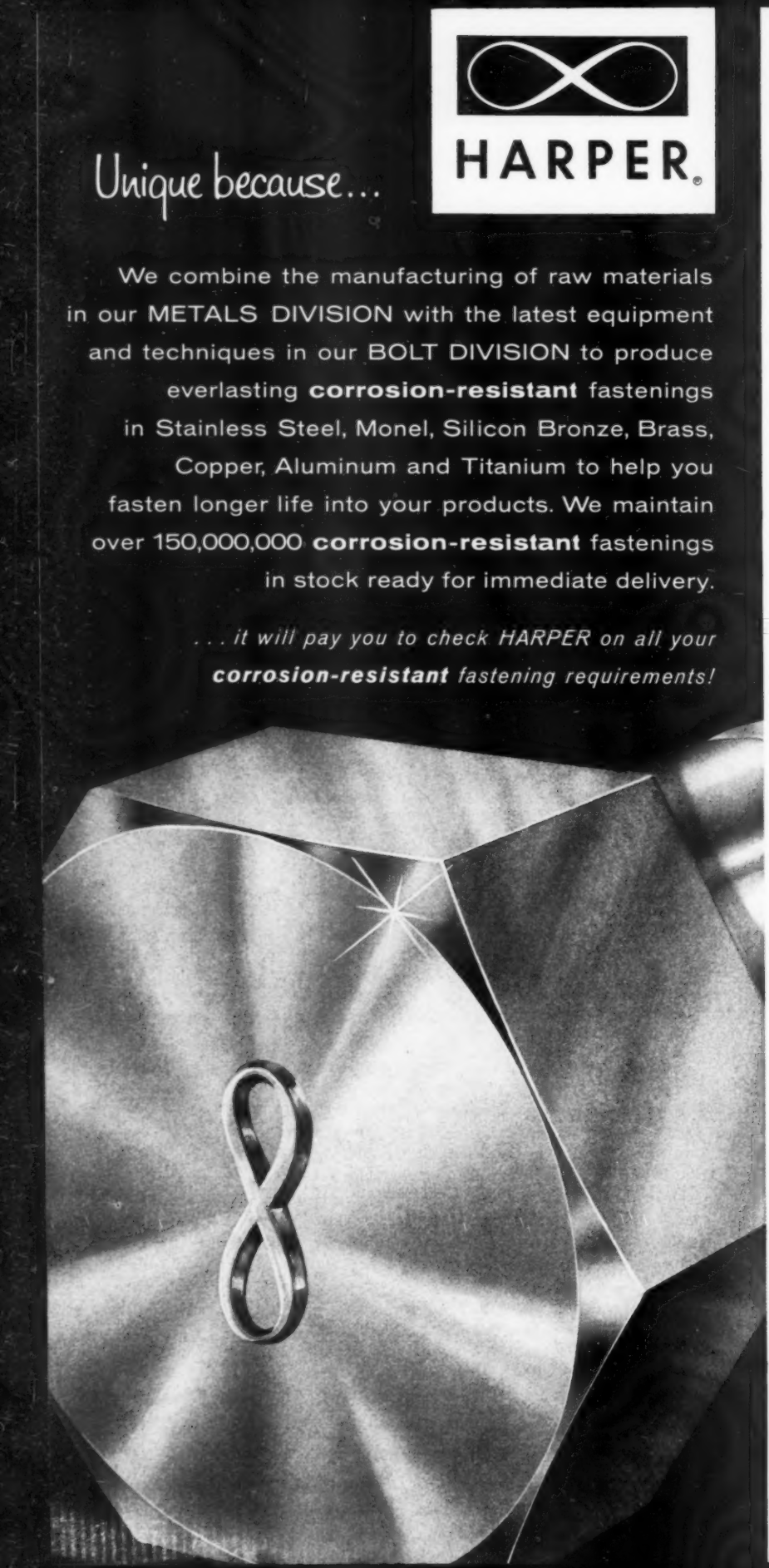


Motorola . . . the communications specialist to industry for nearly three decades.

MOTOROLA 2-WAY RADIO

Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.

A Subsidiary of Motorola Inc. SPaulding 2-6500



Steelworkers Lose

Technically, the strike at Carrier Corp. is still on. But more than 80% of strikers are back at their jobs.

Production workers at Carrier Corp. plants in Syracuse, N. Y., quit jobs Mar. 2 in a dispute over penalties for five leaders who refused overtime work. It was the first time Carrier's plants had been closed by a strike.

This midweek, the company's production of air-conditioning units was climbing back to normal. Technically, the strike was still on. But, from a practical standpoint, it was over. More than 80% of Carrier's hourly paid workers were back on the job. The number was being built up steadily.

One of the country's toughest unions had lost its first test of strength with an equally tough-minded employer.

• **First Contract**—The United Steelworkers won bargaining rights for Carrier plants in Syracuse last January; slightly more than half of those eligible voted to be represented by the steel union instead of a federal local, as before. Now USW is facing the difficult task of negotiating a first contract that will justify—and solidify—its position in the plants.

The strike that began Mar. 2 only indirectly involves bargaining. Ordinarily, Carrier's air-conditioner plants operate on an overtime basis this time of the year, to build up stocks for the hot-weather selling season. When it sought peak production through overtime work as usual this year, leaders of the new USW local balked. They charged that Carrier was building up its inventory for a bargaining advantage in a "union-breaking" showdown on a contract.

In late February, the USW membership went on record as willing to strike "when and if the company penalizes any of our people for refusing to work overtime." A few days later the company ordered a five-day suspension for the local president and reprimanded four other leaders for refusing to do assigned work. Employees walked out.

• **Rights Issue**—Union ads charged that Carrier "was deliberately working us overtime in an effort to stockpile merchandise and then would 'allow us to strike' and stay out on the picket lines . . . until such a time as they could finally get rid of the Steelworkers once and for all."

The company denied that it had any such intention. It reiterated that it was interested only in scheduling the work necessary to build up its usual pre-summer inventory. It denied anti-union policies and said that it believes em-

ployees "should be represented by a highly competent and completely responsible union with good leadership."

But, Carrier added, a new issue had been injected into the dispute as a result of the USW position against overtime work. Management must have the right to manage—to schedule work according to its needs, the company said.

The corporation and union conducted vigorous propaganda campaigns for three weeks. During that time, the plants were idle except for defense work done by a stay-in supervisory work force of 100 on air-conditioning systems for Polaris missile-firing submarines.

• **Agreement**—Late in March, Carrier announced that it intended to reopen its plants. Subsequently the union and corporation worked out a "memorandum of understanding" to end the strike Mar. 28. The local membership approved it by "overwhelming" vote. To all appearances, the walkout was over on terms the corporation considered "pretty good, over-all." It had made concessions, but so had USW.

The status of the USW local president had not been settled, however. When Carrier made clear that it intended to enforce his five-day suspension "for refusing arrogantly to do work that he should have done willingly," the local announced the strike was still on.

Pickets were at the Carrier gates the morning of Mar. 28. Workers ignored them to pass through a police cordon. Some 1,600 worked the first day, a little more than half the normal work force, then more, day by day, until early this week the number exceeded 2,700.

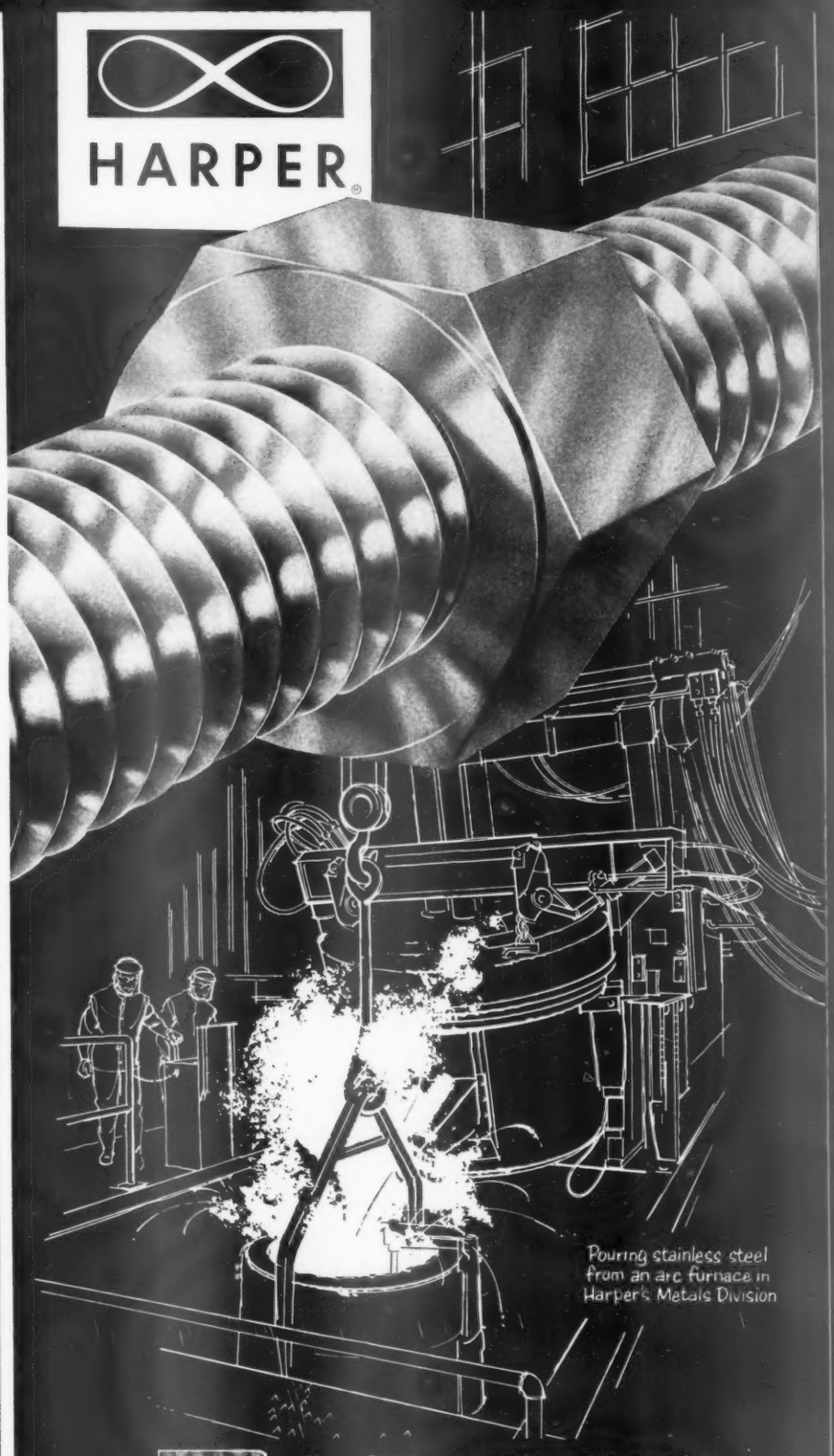
With employment mounting steadily, Carrier began planning to resume normal three-shift operations. It called on 500 USW supporters still out to return to jobs, and warned that replacements would be hired otherwise.

The corporation—and USW—knew this would be no problem. Just a week ago another large Syracuse employer, Smith-Corona Marchant, announced that it plans to pull out of the city. Carrier's talk of new hiring brought 302 applicants to its gates Monday and 200 were lined up there Tuesday morning.

When the United Auto Workers reinforced the worried steel union on picket lines, a flurry of violence caused new tension. It did not halt the flow of workers or applicants.

At the same time, the company announced that nobody would be "disciplined or disfavored because of anything he did" during the strike, and that no distinction "is to be drawn between those who supported the strike and those who did not." But, Carrier warned, in the future—as before—"if someone clearly violates a rule, he is to be disciplined according to the rules, regardless of whom he may be." **END**

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1. Choose the fleet car that saves you $142 to start with! The Ford Fairlane 500 is bigger and roomier than last year—with even more built-in value—yet the price tag reads $142 *less*. It's America's best-selling fleet car.



2. Then save every mile it's on the road! Both the Mileage Maker Six and the standard Thunderbird V-8 operate on regular gas, saving you up to $1.00 a tankful. And you go 4,000 miles between oil changes.

1960 FORDS—FINEST FOR BUSINESS

Executive size, looks, and comfort . . .

business-like low price and operating economy

The 1960 Ford's big car looks and comfort . . . the low Ford price . . . the famous Ford economy . . . have made it Number One in fleet sales.

Ford *savings* start with the price. The 1960 Ford Fairlane 500—America's Value Leader—is priced $142 less than last year. Day-to-day operating expenses are lower, too. In addition to $1.00-a-tankful savings with regular gas and oil changes only every 4,000 miles, Fords have aluminized mufflers that normally last twice as long as ordinary types. Diamond Lustre Finish means business-like good looks without waxing—ever!

Ford *value* starts with built-for-people comfort. Windshield posts are angled forward—eliminating the "dogleg" and making it easier to get in and out. The 1960 Fords have comfort-height seats, wider doors, up to four inches more shoulder room, more leg and hip room, too.

Ford popularity assures high resale value. Fords were first in fleet sales in 1959 . . . are the best-selling 1960's too.

For 1960, the best buy is even better for your business *and your budget!* Call your Ford Dealer today.

FORD DIVISION, *Ford Motor Company*

'60 FORDS FALCON FORD

best for business . . . whether you buy or lease



3. Executive size and comfort! Huge trunk holds all the suitcases, briefcases, and samples any businessman wants or needs. Interiors have room to spare for six big businessmen to travel in comfort for hours.



4. Protect your investment with Ford's high resale value! Today's best sellers are tomorrow's best trade-ins, *and your best buy.* The 1960 Ford's success helps assure you that your investment will be protected in the future.

In Labor

• • •

McFetridge Expected to Retire, Building Union Weighs Successor

William L. McFetridge, 66, is expected to retire next month as president of the 250,000-member Building Service Employees International Union, after two decades in the top office.

McFetridge told a BSEIU convention in 1955 that "I'm worn out, I'm wearing out," and would like to retire. However, the union's secretary-treasurer, William H. Cooper, groomed as successor by McFetridge, had died earlier that year, so McFetridge was persuaded to stay in office.

The term to which he was elected in 1955 expires next month, but he talked of resigning in 1958 at a special convention. Again he was talked out of quitting. **It's doubtful that this can be done again next month when BSEIU holds its convention in New York.**

If McFetridge bows out, it probably will be only as president of the union. Chances are that he will remain as chairman of the board or president emeritus—and will continue to direct the union's Marina City redevelopment project in Chicago (BW—Mar.5'60,p38). He may keep his AFL-CIO vice-presidency.

McFetridge also is president of BSEIU Local 1 in Chicago. He tried to retire from that part of his "terrific load" in May, 1957, but the local's 8,700 members voted to reelect him.

Insiders see three possibilities for election to the union presidency if McFetridge retires: David Sullivan, head of Local 32-B in New York, the BSEIU's largest; George Hardy of San Francisco, who has jurisdiction over 11 western states, and Albert G. Hearne of Toronto. Sullivan is considered the front runner.

• • •

Arbitration for Locomotive Engineers May Set Pattern for Train Crewmen

Arbitration got under way this week in the national wage dispute between the Brotherhood of Locomotive Engineers and major carriers. Under an agreement signed in March, **the six-man tripartite board must make binding recommendations by May 15. The award is expected to set a pattern for train crewmen.**

According to the carriers, BLE is demanding a 12% increase in basic wage rates, or about 34¢ an hour. The 63,700 engineers now employed average straight-time hourly earnings of $3.80 and annual earnings of $9,500.

The roads want engineers' pay reduced 15¢ an hour, the amount, they say, "wage increases for rail employees have exceeded those for workers in industry generally since 1953."

Meanwhile, **the National [Railway] Mediation Board proposed arbitration in the deadlocked dispute between carriers and nonoperating unions representing 550,000 off-train workers.** The roads agreed provisionally but the unions refused arbitration.

The probable next step is a strike vote. If there is one, the NMB will ask the President to name fact-finders and to bar a walkout for at least 60 days. The unions want a 25¢ raise; the roads, a 20¢ pay reduction.

• • •

Teamsters Monitor Protests Ouster; Another Is Prevented From Quitting

The Teamsters board of monitors was in a legal muddle this week—with one member protesting he was forced out against his will, another prevented from quitting.

Judge F. Dickinson Letts ousted the rank-and-file's monitor, Lawrence T. Smith, for siding with James R. Hoffa's representative against neutral Chmn. Martin F. O'Donoghue. **Letts named Terence F. McShane, former FBI agent who once investigated Hoffa, to replace Smith.**

Smith said he intends to appeal his removal. He accused O'Donoghue of wanting only to "get Hoffa," not clean up the union.

Judge Letts refused to accept the resignation of Hoffa's monitor, Daniel H. Maher, who said he wanted to quit for health reasons. Hoffa named William E. Buffalino of Detroit as successor. Buffalino was accused by the McClellan Committee of underworld association.

• • •

Clothing Workers Get 21½¢ Wage Hike

The Amalgamated Clothing Workers and the United States Clothing Manufacturers' Assn. last week agreed upon a 21½¢ hourly wage package in a three-year pact covering 125,000 workers in the men's clothing industry.

The agreement provides for a direct wage increase of 17½¢ on June 1, the largest single increase since the union was founded in 1914 and the first since 1956. Clothing workers average $1.77 an hour.

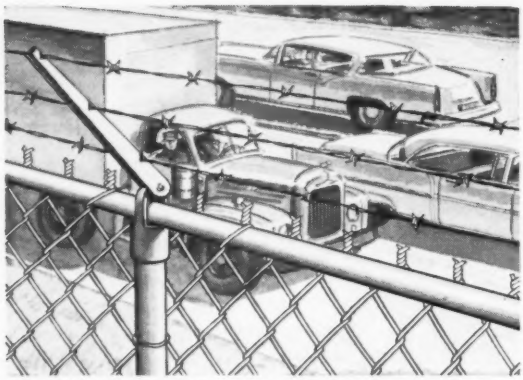
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Labor Briefs

The Teamsters won't press a challenge of representation rights of the International Union of Electrical Workers at General Electric's Appliance Park at Louisville—at least not yet. **Although it claims 2,598 signed cards, the union concedes this is short of the 30% needed.**

The U.S. Supreme Court this week ruled, in effect, that minority unions are free to conduct "Don't Buy" picketing directed at consumers as long as they comply with Landrum-Griffin Act rules against interfering with normal delivery or pickup of goods.

Republic Aviation and the Machinists reached agreement this week on **a new contract providing an average 19½¢ an hour in raises and fringe benefits over two years** —7¢ to 11¢ raises averaging 8½¢ this year, 5¢ to 8¢ and averaging 6½¢ in 1961.

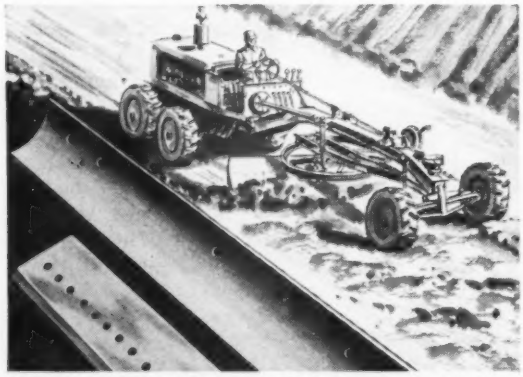


REALOCK FENCE – This rugged chain link fence is ideal for job-site protection of tools, equipment and materials. Also recommended for right-of-way installations. Available in galvanized steel or aluminum.

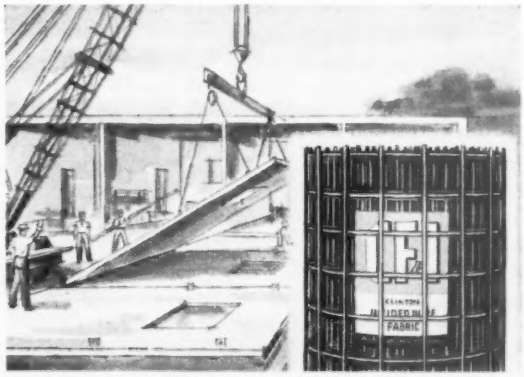
You have helped better Steel

Through the years, CF&I engineers and field men have talked with contractors on countless job sites across the country. Their objective: to gain a thorough insight into all types of construction problems, and discover how CF&I steel products could be improved to help solve these problems.

Construction men have been most cooperative—perhaps you were one of them. They told us what they



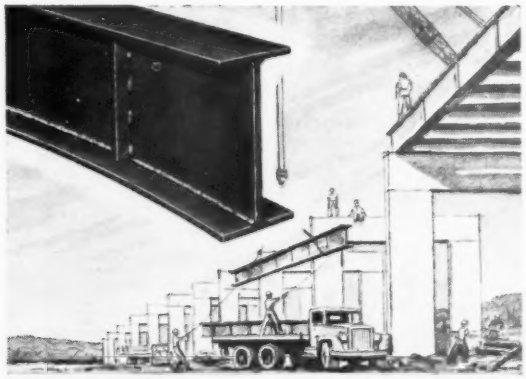
GRADER BLADES – Scientifically designed and carefully manufactured, CF&I Blades and other cutting edges are tough and durable. Available in hundreds of different lengths, widths, thicknesses and hole spacings.



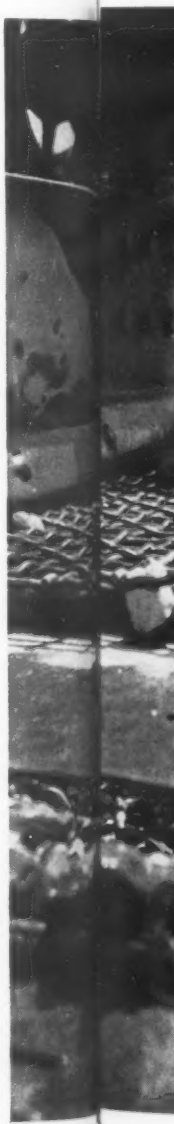
WELDED WIRE FABRIC – CF&I-Clinton Welded Wire Fabric speeds construction of precast concrete sections because it can be easily cut and installed. Steel mesh increases the strength of the concrete unit and helps prevent small cracks from expanding.



STEEL STRAND – CF&I Strand is manufactured in accordance with ASTM Specification A-122 for long-lasting guying applications. Carefully galvanized, CF&I Strand resists weather and other corrosive elements.



WELDED GIRDERS – CF&I's Claymont plant produces all-welded steel girders for highway bridges and overpasses or for rigid frame building construction. Claymont's ideal location near major rail, water and highway arteries ensures prompt delivery.



For complete information on all products, ask for Catalog G-104, "CF&I Steel Products for the Construction Industry."

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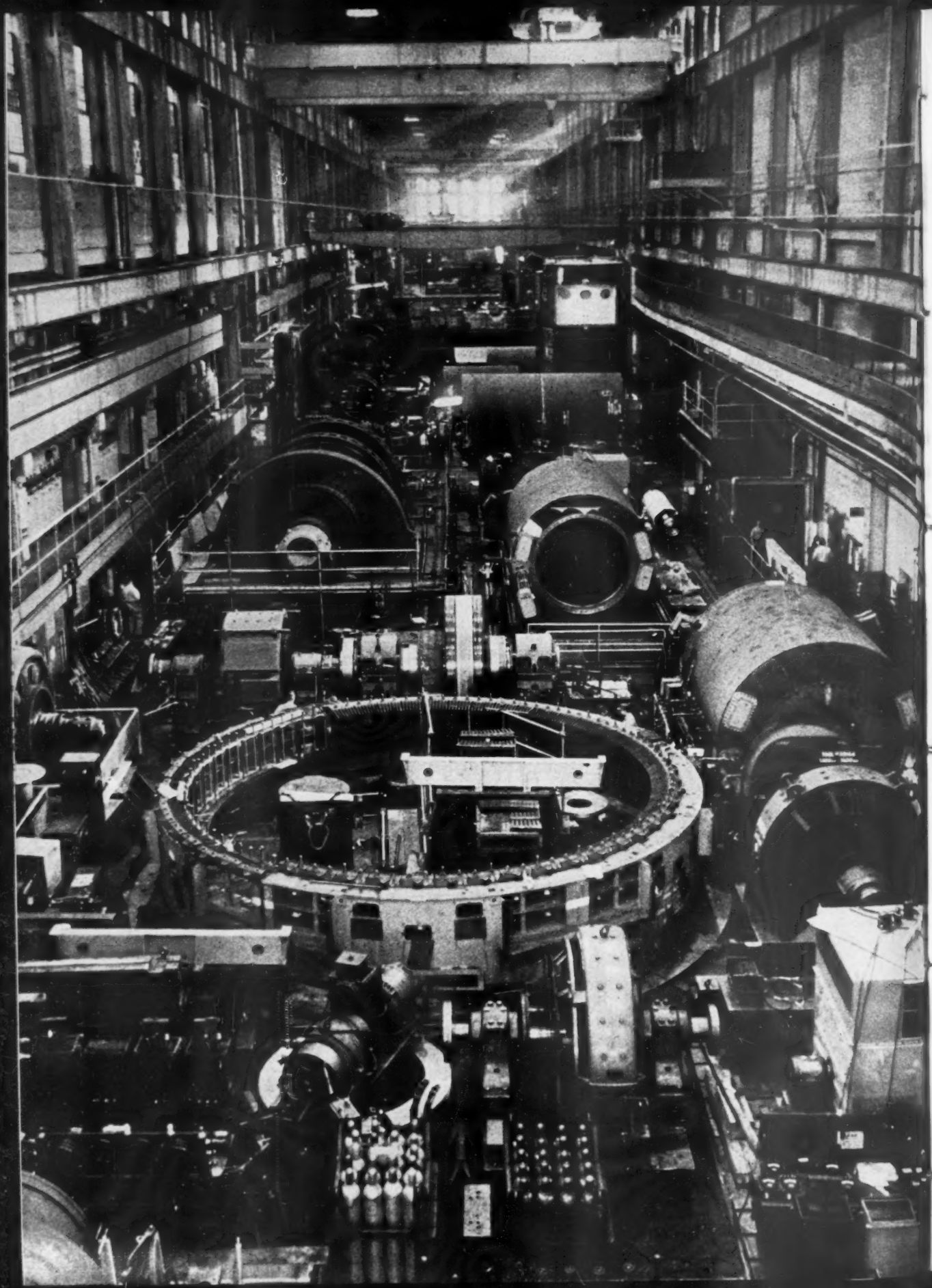


needed, and we have met the challenge with modern steel construction products.

Some of CF&I's steel products for construction use are shown on these pages. All have *dependability* built into them—an intangible quality symbolized by our Corporate Image. You can rely on these steel products to help you handle all types of construction jobs safely, efficiently and profitably.



SPACE SCREENS – CF&I makes a wide range of space screens; you can select the type that gives the specific results you need – accurate sizing, rapid screening, maximum resistance to destructive factors, or an optimum combination of these desirable features.



MANAGEMENT

Bringing A-C Into New Balance

Allis-Chalmers' Pres. Robert S. Stevenson, presiding at Monday morning meeting of brass (right), has revamped his company's management.

For a 113-year-old, Allis-Chalmers Mfg. Co. has been displaying some remarkable sprightliness lately. In the last five years, since Robert S. Stevenson (cover and pictures) became president, the company has been moving farther away from rigid conservatism to an almost youthful exuberance.

For more than a century, the diversified Milwaukee manufacturer kept its accomplishments pretty much to itself. For long-term growth, it relied on its wide range of power generation, transmission, and distribution equipment. The newest example of this sort of gear is Allis-Chalmers' design for a compact steam turbine generator, shown on the cover with Pres. Stevenson. In the short run, the company prospered or languished, depending on the market for its farm equipment and construction machinery.

• **Modesty**—Through the years, the basic philosophy at Allis-Chalmers, according to a senior vice-president, was "order it, engineer it, build it, ship it, erect it, and be proud 100 years later that it still runs." A-C still prefers to do things first, "then tell you about them," top management admits. But these days it has a lot more to talk about than it used to, even if it still does the talking after the fact.

The 53-year-old Stevenson, president since April, 1955, has been continuing and enlarging a program begun by his predecessor, W. A. Roberts. A-C has gone into fields such as atomic energy, engines, material handling equipment, industrial systems, and fuel cells, at the same time that it has been filling out existing lines.

Starting in 1951, Roberts put a firm hand on the company, adding badly needed plant, centralizing management, and forging the separate parts he inherited into a cohesive whole. Stevenson has brought Allis-Chalmers into balance. For efficiency's sake, he split the company into basic divisions—and found his management staff eager to accept authority matching the responsibility they already carried.

He also has been able to free himself



TURBINES are among the major electrical items made by A-C. Recent acquisitions will ease crowding in this West Allis plant.



FUEL CELLS, converting energy of a chemical reaction directly into electrical energy, are a bright A-C hope. It hopes to complete cell-powered fork lift truck by summer.

for long-range planning, improvement of relations with customers and dealers, personal checkups on domestic and foreign operations, and bringing his relatively unsung company to more public attention. The changes have come slowly. To understand the reasons for this—and for the company's reticence—it's necessary to examine something of its history.

I. Century of Growing Up

Although it dates back to 1847, the story of Allis-Chalmers, in one sense, looks familiar: It consists of a long series of mergers and acquisitions. Since 1901, A-C has picked up 34 companies or parts of companies here and abroad—nine of them since 1957.

The start came with the opening of a small shop in Milwaukee to manufacture French burr millstones and other equipment for flour milling.

A sheriff's sale closed the operation in 1861, after 14 years; Edward Allis picked it up through a brokerage firm in which he was a partner and named it Edward P. Allis & Co. Allis, envisioning a market in goods for basic industry, surrounded himself with top-flight engineers and expanded into steam power, pumping, and sawmilling. Volume increased from $31,000 to $3-million by 1882; among other things, the company claims it built the country's largest centrifugal pump and designed the first triple-expansion pumping engine.

• **First Merger**—After Allis died in 1889, a merger with Fraser & Chalmers Co., Chicago, and two other companies created Allis-Chalmers Co. The expanded company produced engines and machinery for mining, rock crushing, cement making, sawmills, and flour milling.

Volume reached $10-million after the merger. A large new plant was built near Milwaukee in West Allis, the company's present headquarters.

Acquisition of Bullock Electrical Mfg. Co. of Cincinnati in 1904 put A-C into the electrical field; Bullock's plant eventually became A-C's Norwood works. But the mergers and subsequent expansion also put Allis-Chalmers into financial trouble. Just prior to World War I, it was reorganized in 1913 as Allis-Chalmers Mfg. Co., and, under the direction of Gen. Otto H. Falk, it was back in the black two years later. In 1916, it returned a profit of $3-million on sales of $19.4-million.

• **Down to the Farm**—Falk wasn't content with the vagaries of the capital goods business; so in 1914 he brought out a farm tractor in the hope that it would stabilize sales and acquaint the public with the Allis-Chalmers nameplate. "Nobody," he complained, "outside of the heavy industries ever heard of Allis-Chalmers." The company's agricultural line changed all this: The general public today usually identifies A-C—to management's chagrin—as only a farm implement manufacturer.

A separate Tractor Div. was set up in 1926, and additional acquisitions rounded out the company's agricultural line and put it into construction equipment, too. It got into the farming big-time with development of a rubber-tired farm tractor in 1932—driven 60 mph. by Barney Oldfield at county fairs—and with the production of a small and versatile "All-Crop Harvester" or combine in 1935.

By 1937 sales had grown to $87.4-million from a Depression low of $13.3-million in 1933—and of the $87-million, 58% came out of the Tractor Div. The company shot up to third place in the farm equipment industry and has stayed there ever since. It is also rated No. 3 in the heavy electrical equipment and construction machinery fields. By now, it has 18 domestic and six foreign plants.

II. Rule by Departments

In 1942, the presidency at Allis-Chalmers was taken over by Walter Geist—in the judgment of one company veteran, "the last in a series of nondescript presidents." The company's capital goods and farm equipment businesses were soundly established by then, and World War II pushed sales to a peak of $364.7-million in 1944.

An 11-month Communist-tainted strike in 1946 (BW—Mar.29'47,p90) got Allis-Chalmers off to a rocky post-war start. Sales plunged that year to $94-million from $282-million in 1945. They recovered in 1947, topped $500-million in 1952, and have stayed above that level since except for recession year 1954.

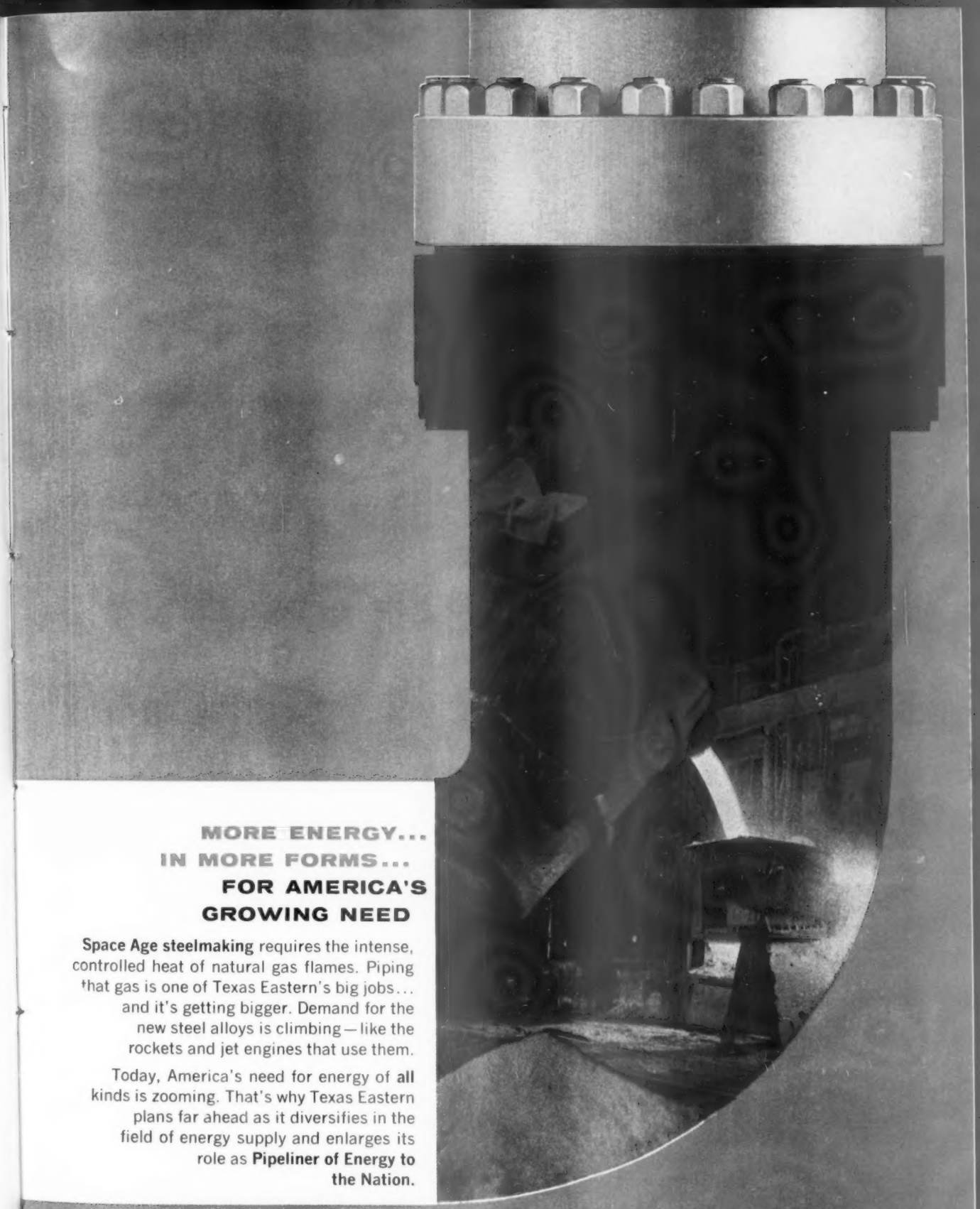
• **Apartness**—Geist, described by a director as "primarily a salesman," was a self-made man with little formal education who joined the company as an errand boy when only 15. He had not been a member of either the board or the executive committee before being named president.

Under him, decentralization came to Allis-Chalmers in an extreme form, with each operation oriented to a particular product line and answerable pretty much to itself. It was not just two separate companies, as might seem likely from the two basic divisions—General Machinery and Tractor—but a number of separate companies. One executive calls it the era of department rule. "Department heads reigned like kings in their respective little throne-rooms," he says.

Geist disliked adding plant. During his tenure, A-C bought only the Gadsden, Ala., works—a wartime ordinance operation—and plants in England and Canada. One officer who formerly managed a branch plant agonizingly recalls recommending acquisition of an eastern plant to add power equipment capacity. "It was a natural addition and cost only $5.6-million," he recalls. "But Geist toured the plant, examined the books, and then got back on the train for Milwaukee, crying 'Oh God, more brick and mortar.'"

• **Two Groups**—Geist also was reluctant to add any new officers to the company or to bring in subordinates on matters of company policy. His two heirs apparent, W. A. Roberts and W. C. Johnson, were not named to the executive committee and to the board until 1948.

In 1947, each had been named an executive vice-president—new posts at the time—with Roberts at the head of the Tractor Div. and Johnson running



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the General Machinery Div. This move tended to sharpen the split between farm and capital goods equipment, the new titles were the first overt recognition that two different kinds of businesses existed. The Tractor Div., which included construction equipment, manufactured most of its products on an assembly line and sold them through dealers. General Machinery Div. products for the most part were highly engineered to the customer's order and sold directly to him. For all practical purposes, each division completely ignored the other.

III. Strong Man at Center

At Geist's death in January, 1951, Allis-Chalmers was doing about $350-million of yearly business. Despite its size, its roster of officers, in addition to Roberts and Johnson, included only five vice-presidents—one of them the company attorney and another the head of research, who had joined the company only three months earlier. A-C was bumping the ceiling in its production facilities, though, and in the early 1950s, following the Korean conflict, was "all sold out lots of times," according to Stevenson.

The presidency traditionally had gone to a general machinery man, and when Geist died, Johnson appeared the likely successor. But Roberts' age (53 vs. Johnson's 48) and greater breadth—in the board's opinion—were decisive factors in a tough choice, according to a man who was on the board at the time.

When Roberts took over, Stevenson and J. L. Singleton were named vice-presidents in charge of the Tractor and General Machinery Divs., respectively. Stevenson had been general sales manager of the Tractor Div. since 1950, Singleton had been a vice-president and director of sales of the General Machinery Div. since 1947. Johnson was given the new job of executive vice-president for the company but died of a coronary attack less than six months later—"of a broken heart, actually," says one officer. Stevenson succeeded him as executive V-P in July, 1952, a year later.

• **More Brass**—While Roberts remains a somewhat controversial figure at Allis-Chalmers, his ability to lead and his devotion to the company are unquestioned. He acted quickly to spread the managerial load, added productive capacity, and improved communications between the two basic divisions.

At Roberts' behest, four new vice-presidents were named when he assumed the presidency. The following year the list was enlarged to 14. He bought five domestic plants, including the Buda Co. of Harvey, Ill., which put A-C into engines and material handling equipment (formerly the company had bought the engines for its equipment outside), and completed construction of a sixth plant. Roberts also instituted the Monday morning meeting, a weekly get-together of top brass, to coordinate thinking between the divisions.

• **Reports From 68**—But his centralization program was carried to the point where some executives were overloaded and unable to function effectively. For instance, when the Buda Co. was acquired in 1953, it became a separate, third division, but its sales force reported to the general sales manager of the Tractor Div. "We were sort of lost sheep under the setup," recalls a Buda man.

To complicate things further, the Tractor Div. sales manager had four different businesses to oversee—farm equipment, construction equipment, engines, and fork lift trucks. Says the Buda man: "The sales manager had 68 people reporting to him and was trying to oversee 16,000 altogether from his desk in a corner of the West Allis headquarters."

The manager of a division—at that time a department—in the General Machinery Div. makes the same point succinctly: "There were more of us reporting to the division manager than you could get into one room."

• **Slow to Let Go**—Present management is reluctant to talk about its predecessors, but the impression is clear that Roberts' chief shortcoming was an unwillingness to match authority to the responsibility he assigned. One veteran of the company recalls: "Everyone reported directly to him, including the editor of the West Allis works employee newspaper."

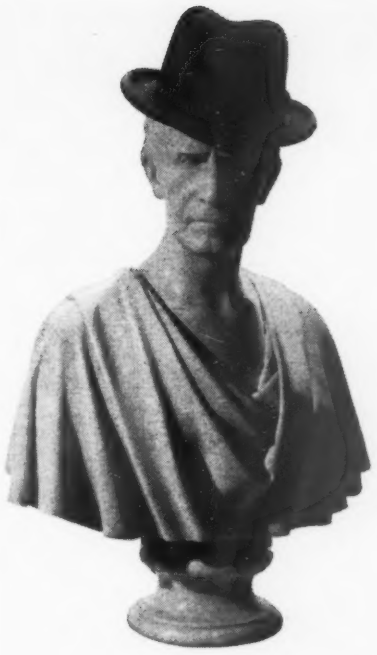
Probably the most knowledgeable assessment comes from a vice-president who says: "A man like Roberts was needed at that point—he was a strong man and the company was in a period of transition. The trouble was that once he got hold of things, he had trouble letting go."

IV. Dividing Authority

Stevenson is emphatic that the general direction in which he has moved since 1955 was set by Roberts. Both he and Roberts "favored allotting greater responsibility to individuals, with recognition—when deserved—on top of that," he says. But only six weeks after becoming president—in April, 1955, following Roberts' death—he took his first important step in revising operations.

He split the two major divisions—Tractor and General Machinery—into five operating divisions, each with its own profit and loss statements: Farm Equipment, Construction Machinery, Industrial Equipment, Power Equipment, and General Products. The Buda Div. remained separate.

• **Integrating Buda**—Another look at



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SECOND MAN to Pres. Stevenson is Willis Scholl, executive V-P and operating chief.

Buda will show how Stevenson operates. L. C. Daniels, division general manager, joined Buda in 1950 when it was an independent company to start a material handling line. He was vice-president in charge of Buda's Railroad & Materials Handling Div. when it was sold to A-C. The new parent left Buda to operate as before until Pres. R. K. Mangan retired in January, 1957. Then Daniels, upped to general manager, moved to West Allis.

Daniels found he still had to sell some A-C executives on the Buda business, and the inference is that Daniels, in turn, had to be sold on A-C. Buda's dealers were used to peppering the home office for prices and specifications, but under A-C distribution was done through branches—six American and three Canadian. This gave the division a "three-deep" organization. Orders are taken monthly at the division's Harvey, Ill., factory for parts, but if dealers run short they can get overnight service from the branches. "It's a setup most of our competitors can't afford," boasts Daniels.

Early in 1958 he went to Stevenson and proposed that the Buda Div. name, jealously guarded at first, might be changed. "It seemed more logical in the end to adopt the company name," recalls Daniels. Buda now is called the Engine-Material Handling Div.

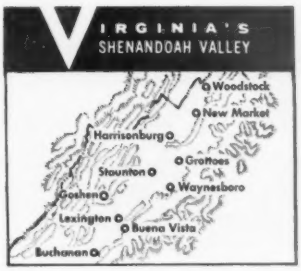
• **A-C's Fuel Cell**—In 1958 the division occupied a $3.25-million research laboratory and bought the diesel fuel injection systems of Micromatic Hone Corp.'s Evanston Div. This year construction was begun on a multimillion-dollar engine plant that will double capacity and permit A-C to seek a bigger share of original equipment engine business, instead of just supplying engines for its own equipment.

Stevenson has increased A-C's spend-

"Around here, good manpower's as plentiful as good fishing!"



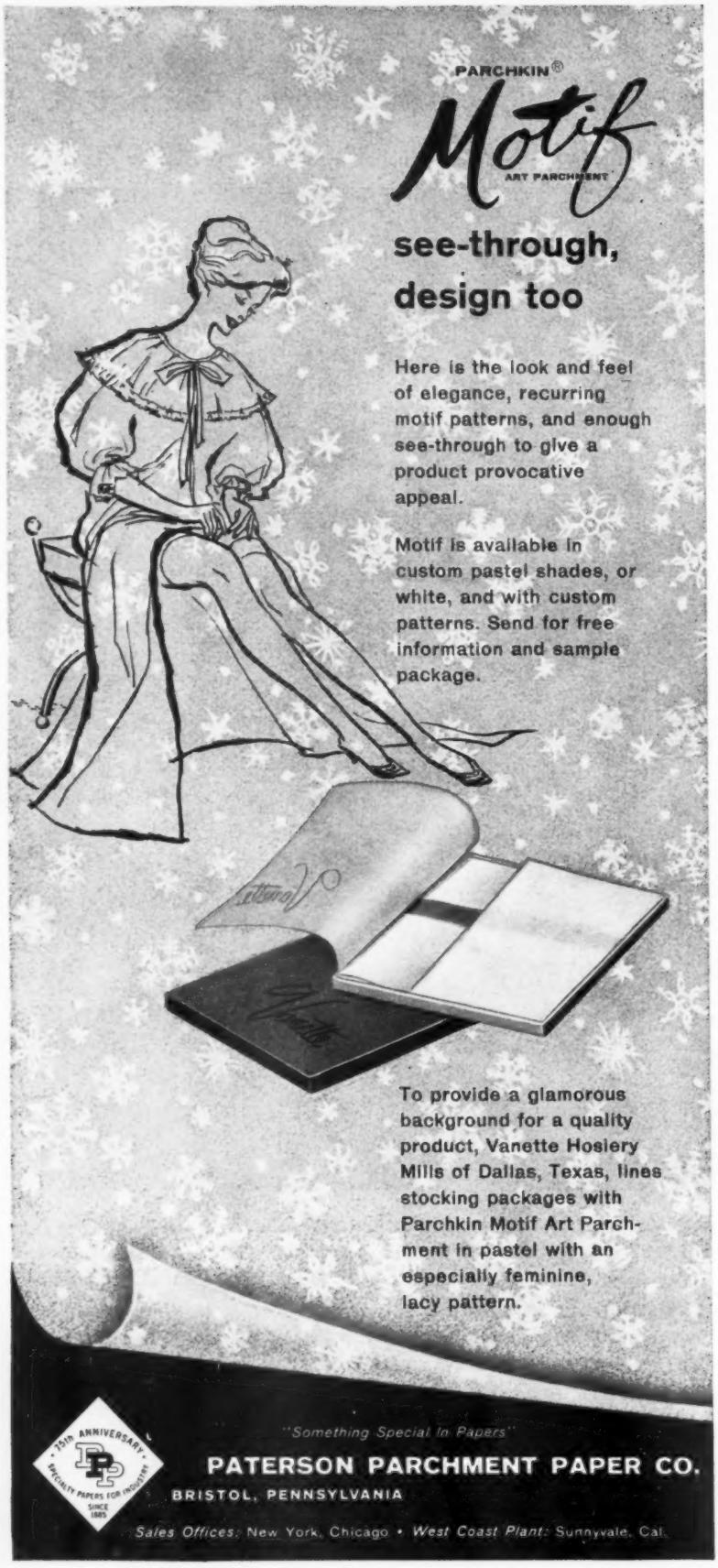
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ing for research, development, and engineering by well over 40% since 1956. Last year it reached 5% of the sales dollar, highest in company history. One of the most dramatic fruits of the program was development of a fuel cell that would power a full-sized vehicle (BW—Oct.17'59,p33).

For demonstration, the fuel cell was put into a farm tractor, but its first commercial use may come in a fork lift truck, made at the Harvey plant.

V. Proudly Conservative

A-C's dramatic fuel cell announcement, coupled with the bullish outlook for capital goods expenditures in 1960, drew considerable attention to the company from investment houses last fall and winter. The comments were generally favorable to A-C, if somewhat reserved. The reason for this is that while Stevenson has broken the ice at Allis-Chalmers, he hasn't yet melted all of it.

He took the last logical step in the company's reorganization last August when he told the Monday morning group that Willis Scholl, executive vice-president, would thereafter act as chief operating officer. Stevenson explains that he and Scholl had been "assigning things back and forth, working out a doubling arrangement," and that the move would free him to devote more time to corporate planning and outside activities. A five-week trip abroad followed the change, and Stevenson has spent more time with customers, dealers, and industry groups and at A-C plants outside Milwaukee.

• **Mum's the Word**—But typically, the designation of Scholl as chief operating officer was kept within the select group that attends his weekly Monday meetings. A company spokesman explains that since no change in titles was involved, no outside announcement was made. In other words, it was nobody's business but Allis-Chalmers'.

This kind of thinking hasn't endeared the company to outsiders such as financial analysts, even in Milwaukee where admiration for conservatism is great. A vice-president of a venerable Milwaukee investment firm observes that A-C has had "a kind of paper wall around it, an attitude of self-sufficiency and apartness from the rest of the community. For years, they might as well have been located in Madison as Milwaukee," he says.

Stevenson has made an effort to alter such opinions. To questions about the company's past aloofness, he puts one of his own: "They're not saying that about us now, are they?" Later this month, an olive branch will be extended when the company holds a field trip and meeting for the Investment Ana-



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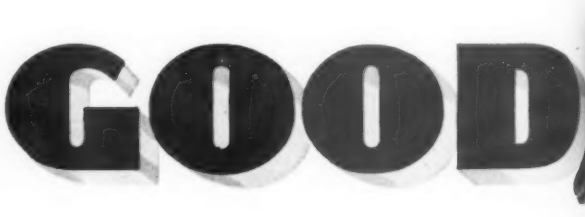


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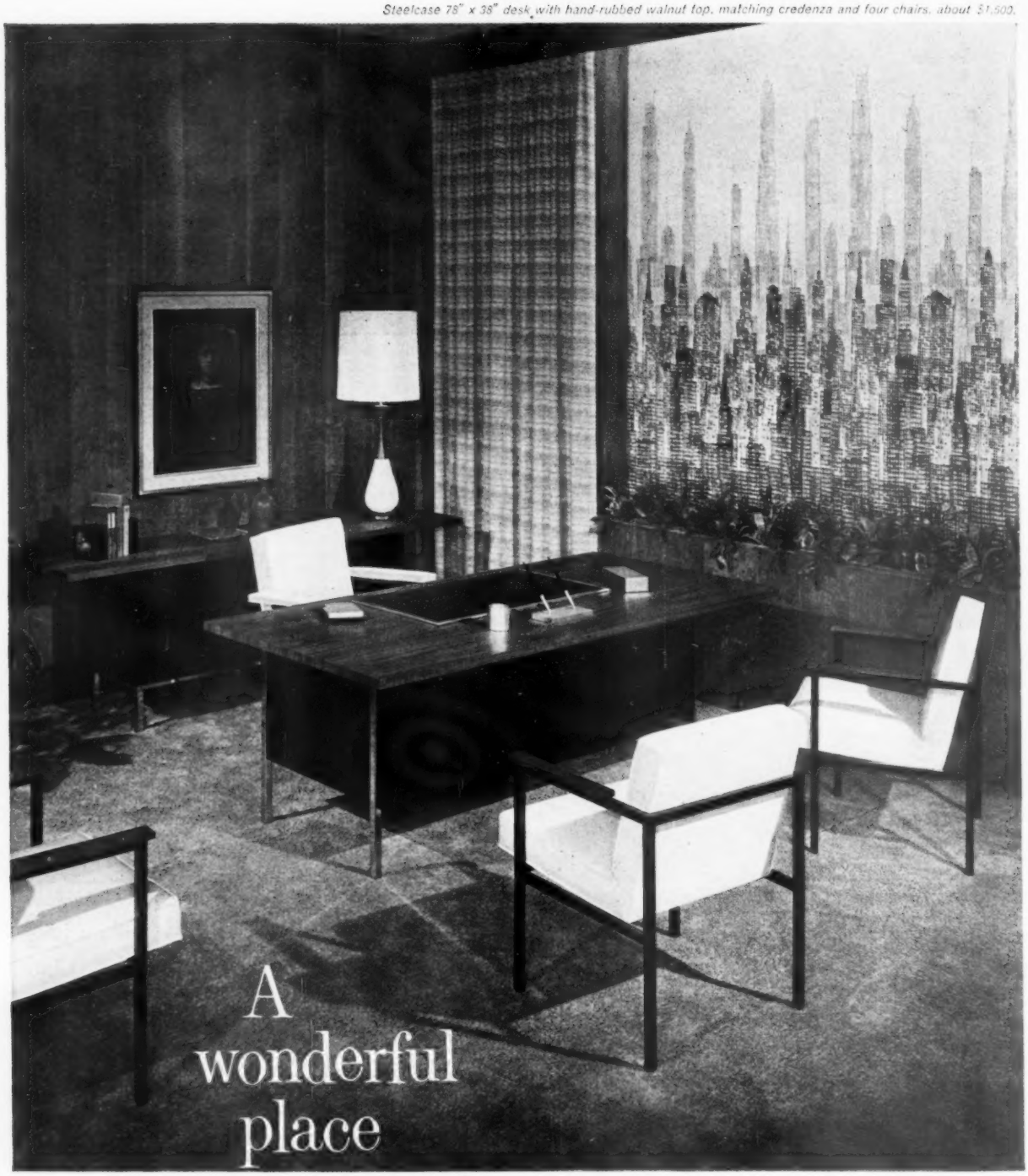
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lysts Society of Chicago and its Milwaukee chapter.

But Stevenson stoutly defends his company's conservatism in some areas—for example, its practice of financing much of its growth out of earnings. It has expanded carefully to prevent overextension. "On top of this kind of conservatism," he says, "tremendous dynamics are possible." He points to recent company activities abroad and in the nuclear field.

• **New Divisions**—In 1957 Allis-Chalers International—a major operating division—was formed and given responsibility for all manufacturing, engineering, and sales outside the U. S. and Canada. To an English operation, the division has added plants in Australia, Mexico, and Italy, and hints strongly that it will expand again soon.

Previously, the tractor and industries groups had each operated separate export departments, and there was sometimes duplication and confusion. In England, for instance, advertising efforts were not coordinated, and sales efforts overlapped. "Division control permits us to make a single impact on any given area," Stevenson says.

The same thinking led to formation last year of the Defense Products Div., essentially a sales organization that draws on all areas of the company.

• **A-C and the Atom**—A-C's Atomic Energy Div., set up in 1957, is active in both fusion and fission. It refuses to take a back seat to either General Electric or Westinghouse. This division was expanded a year ago by acquisition of the commercial nuclear reactor engineering office of ACF Industries Inc.

The company is working on boiling water reactors. "We're in atomic energy because our business is power, and I think our work will become increasingly important to the company," says Roy Casper, division manager. This division is still in the red, but is "flirting with the black," according to Scholl.

VI. Mission Accomplished

Stevenson now feels he has attained his primary goal: flexibility of operations. Just last month, the company routinely announced it was combining two of its major operating divisions—General Products and Industrial Equipment—into one Industrial Equipment Div. The new division, under W. M. Wallace, one of the company's bright young (45) men, will concentrate on supplying entire industrial and electrical systems, instead of components.

At the same time, Canadian Allis-Chalmers, formerly a part of the Industrial Equipment Div., was broken loose to operate as a separate division. Stevenson hopes to see the Canadian group become a "little Industries Group of its own."

To unleash its full potential in steam turbines, A-C last year bought S. Morgan Smith Co., of York, Pa., which became the Hydraulic Div. Steam and hydraulic turbines had been fighting for space in the crowded West Allis shops; so the hydraulic operations are being transferred to York. To further alleviate congestion at Milwaukee, transformer manufacturing now done there is expected eventually to be shifted to Terre Haute, where some transformers are already built.

• **Long and Low**—A-C is particularly proud of its new design for a steam turbine-generator unit (cover), to be constructed long and low instead of high like most other installations. First in the industry to reveal this "horizontal" concept, A-C says it eliminates high-level foundations and long piping and may reduce plant costs about $10 per kw. of generating capacity. The company presently is negotiating with a utility customer.

The York works sees a bright future in reversible pump-turbine units. These act as hydraulic turbines during the day, when power demand is at a peak, by generating electricity with falling water. At night, when power requirements are low, the turbine is reversed and converted into a pump that returns the water to storage.

A-C and its new Hydraulic Div. are leaders in the pump-storage field and have under construction 12 units for the Tuscarora project of the New York State Power Authority, which will be the largest hydro installation in the world. A-C also is working on a project that could pump 5,000 cu. ft. per second and supply in one hour one of the country's principal cities with power for a full day.

• **Chary of Charts**—When Stevenson is asked how these various changes shape up on his organization chart, he snorts that A-C rarely uses one, because "people and jobs make organization charts, not vice versa."

Top brass have them. But they're unwilling to show them and in many cases even unwilling to admit they exist—a hangover from Roberts who "would turn over in his grave if he even heard them mentioned," says Scholl. Stevenson can be persuaded to produce his, but he removes it from a locked cabinet and displays it like a rare book, secreting it again as soon as possible.

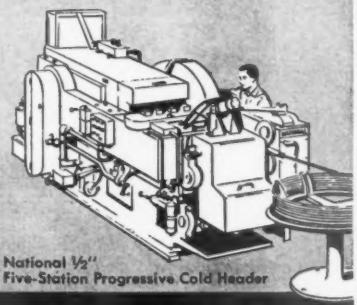
Ironically, the divisionalization that is the guts of Stevenson's program might well have taken place four years sooner but for Roberts' somewhat surprising choice as Geist's successor. Johnson, the other candidate, had been working with another of the General Machinery Div.'s top brass on organization charts that closely resemble the plant Stevenson put into effect. END



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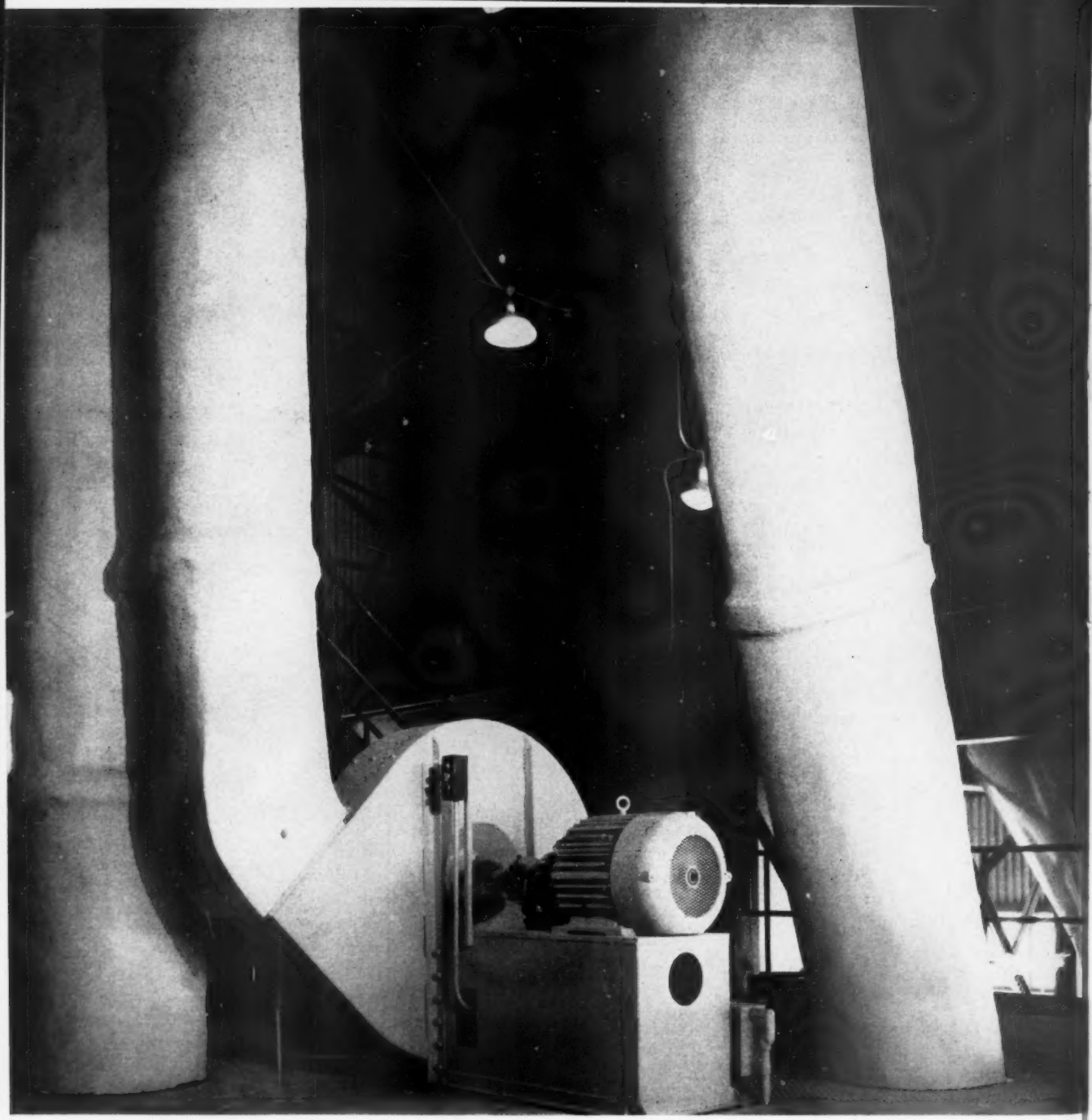


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ECONOMICS

Store Stocks Up on Economists

Benjamin Felsten (pictures) and his staff are involved in a lot of control functions at Food Fair supermarket chain.

Benjamin Felsten's office is a mess. His desk is cluttered with an enormous variety of papers, and the cabinet behind it is covered with more than a hundred manila folders in various states of dustiness. A leather-framed picture of his two young daughters is virtually lost among piles of trade magazines, and there are books galore. Many of the dozen smoking pipes he keeps in the office are scattered about, and various mementos of the food industry hang on the walls.

In the midst of this seeming confusion sits Ben Felsten and his staff in the Store Control & Research Dept. of Food Fair Stores, Inc. Food Fair, a Philadelphia-based supermarket chain that does a $734-million business in close to 400 stores in nine Atlantic seaboard states, has an enormous range of interest.

Felsten, by training and experience



FELSTEN (seated), as head of Food Fair's Store Control & Research Dept., handles such things as operations analysis, market research, store security, and legal liaison.





FELSTEN photographs a food display, which he will use in a report on what kinds of merchandise move fastest.

FELSTEN confers with Vice-Pres. Myer B. Marcus (facing) about store's annual Review and Preview meeting.

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an economist, often gets far from the graduate work in economics he did at American University in Washington. But his job at Food Fair nonetheless is typical of a process that has grown in U.S. business in the past 15 years.

• **New Function**—As businesses grow in size and complexity, producing an expanding mass of data, a virtually new function is emerging from a welter of older functions—such as bookkeeping, accounting, controlling, time study, capital budgeting, market research, and even industrial engineering.

There's no generally agreed-on name for the new function yet; at Harvard Business School, for example, a course called Control comes close to it. Nor has the new function found a generally agreed-on home in all companies; in some the function remains widely scattered, in others it seems to be coming to roost in the office of the comptroller or the treasurer.

One generality does seem to be valid: The control function is moving toward the upper echelons—a development that is apparently promoted by the development of computers along with more rational methods of handling and analyzing data (BW—Jun.21'58,p68).

In the case of Food Fair, the information analysis and control job seems to have found a home in the office of the economist, Felsten. And Felsten reports directly to the executive vice-president in charge of store operations, Meyer Marcus.

• **Corporate-Minded**—That the economist, Felsten, has acquired the control function seems to arise from another modern trend. Since World War II, accredited economists have become increasingly familiar figures in corporate offices.

It was recently estimated that there are more than 3,000 economists now on corporate payrolls—or approximately one-fourth of all trained economists in the country. Initially, of course, some of these men were hired because a company wanted to keep up with the going fad. More often they were hired because they could fill a useful function.

In many companies it has turned out that the initial "useful function"—making national economic projections, say—has long since sunk into relative unimportance. The major contribution the economist has made is a new way of thinking, a different approach to the complicated problems of business.

Many practitioners, too, have been urging an extension of their original domain. At the organizational meeting of the National Assn. of Business Economists last fall (BW—Nov.14'59,p128) many speakers urged economists to delve into new areas of management.

• **Up the Ladder**—Felsten has followed this line, more extensively than most of the convened economists had ever dreamed of. Marcus, Felsten's boss, says frankly that he hired the economist in 1947 (Felsten had spent the previous five years with the Office of Price Administration) because "I needed a leg man."

Felsten's first job—to develop new standards for judging store performance in controlling costs—was pretty much the kind of thing a company economist would handle. But as Food Fair, then with 95 stores and $122-million in sales, grew, Felsten was soon deep into all sorts of other tasks.

Today, Felsten has eight professional assistants plus a clerical staff, and is in charge of such things as: operations analysis, market research, economic studies, store security, bonus plan administration, trademark registration, legal liaison, and customer correspondence.

• **Catch-All Job**—The relevance of many of these tasks to Felsten's background is at best tenuous. His office took in many of these functions because there was no place else for them to go and because Felsten is an energetic type who loves nothing better than trying something new.

When Felsten comments that "I can't spend any time consistently on anything," he isn't really complaining. You get the feeling that this is really the only way the young—38 years old—round-faced executive can be happy—racing from one meeting to the next and from one subject to another.

In a single day earlier this month, his almost constantly ringing phone brought queries from:

• A University of Pennsylvania marketing professor suggesting that Food Fair underwrite a research project about its new gasoline marketing setup.

• The head of the chain's cash control section about a shortage the week before.

• The research director of the Supermarket Institute.

• A branch manager about a store manager's bonus.

There were also calls from the Public Relations & Personnel Dept. about the annual meeting of the company's 800 top people, which Felsten is in charge of this year, and from another branch manager with a problem about a vendor supplying short weight packages—weights and measures are considered part of store security. There was a call from the Philadelphia Crime Commission asking Felsten to become a member of its board. (He accepted.)

The rest of the Store Control & Research Dept. is segmented and each man has specific related tasks, so the motley batch of duties centers upon Felsten himself. Many economists, in the habit of thinking one problem through before plunging into another, would find such a schedule nerve-rack-

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ing. Felsten thrives on it. "I like the turbulence, I like the variety."

Actually, a coordinating thread runs through all Felsten's tasks. Even to the non-economist jobs he brings the economist's approach.

• **More System**—Felsten calls his point of view "unemotional and precise." Thus, when the responsibility for store security was dumped in his lap, Felsten's first goal was to bring more system to the problem.

He tried to put the problem into perspective, to shift the emphasis from worry over dramatic single losses to continuing studies to discover patterns of loss. He evolved a checklist of possible points of loss, then encouraged store managers to tighten up on one or another of these points until he discovered which were the most important. Then a new, more detailed check list came out, which the store managers could use as a "count-down" for store security. (The phrase "count-down" is Felsten's; he admits "I'm the big sloganeer around here.")

• **Amateur G-Man**—Felsten's continuing charge of riding herd on controllable expense—his first job with Food Fair—led him to realize the real financial loss all supermarkets were experiencing through thefts of shopping carts. He estimated it to be $250,000 a year for the five major chains in Philadelphia alone.

So, as head of the security committee of the Food Distributors Assn. of Philadelphia, he coined the word "cart-napping" and got the other chains and the police department together in a publicity campaign against the practice.

Now he's following that up with a district-by-district crackdown, with cruising patrol cars from a private detective agency out looking for housewives wheeling the carts away from store parking lots. So far, losses have been cut almost to zero in those districts where the heat is on. Just this week a City Council committee approved a bill which would fine cart-nappers between $50 and $300.

In the marketing research phase, too, the department puts the emphasis on system. The men run what they call "short-cut" surveys, quick customer interviews on specific topics that can build up enough reference material so that a small sampling can give significant clues to changes in attitude. Typical assignments:

• Find what effect an end display has on the movement of featured merchandising.

• Find where the customers at a new store are coming from.

• Find out whether the chain is losing sales of nylon stockings because it doesn't sell single pairs, but only quarters of a dozen. Answer to that was no, women have come to expect to buy

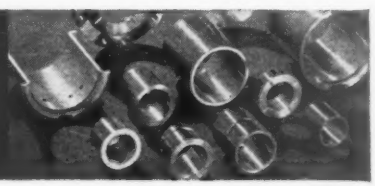
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Increased business forecast for 1960 . . . plant and equipment expenditures, projected at $10,000,000, will put heavy demands on cash . . . need for retained earnings to remain substantial . . . aim for the year: continued building of earning power of existing divisions.

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three pairs of stockings at one time.

• **New Productivity Gauge**—Much of the time Felsten's office functions in the traditional areas of the comptroller. Every month each store sends him reports of all controllable expenses, and the research office analyzes these outlays—running all the way from payroll to laundry—in terms devised for each item.

In the all-important payroll category, Felsten introduced the measure of sales per manhour as a productivity standard instead of the previously used sales per payroll dollar. The economist argued that sales per payroll dollar was becoming a less meaningful figure as Food Fair moved into more and more areas, with different wage structures.

It is the department's responsibility to call it to the attention of the branch manager when any store gets out of line on any expense item.

• **Other Chores**—Felsten also gets involved in decisions to open or close stores. His men provide the basic economic data on income and food expenditures of an area. The Real Estate Dept. uses these figures to decide on where and when to open new markets.

The economists are proud of the fact that when the decision is to go ahead and build, their estimate of the probable volume of the new store is often within a few percentage points of actual take.

Similarly, when a lease is up or when a store closing is considered for some other reason, it is Felsten's job to allocate proper costs to the unit, to predict future levels of business, and to recommend either closing or continued operation. This is marginal utility analysis straight out of the textbooks.

One of the tests of the efficacy of this "analytical" approach—fairly uncommon in the food industry—is the continued growth of Felsten's department, and its constant accumulation of new tasks. The first assistant was added to the department in early 1948—his job was outlined in one of the first formal job descriptions written at Food Fair—and the staff's growth has been steady ever since. It has added eight other professional economists and statisticians.

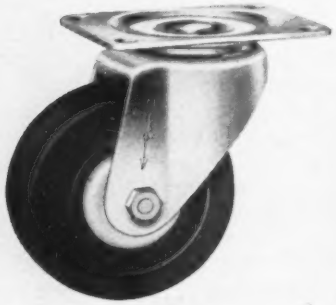
• **Rewards**—Perhaps an even better measure is what has happened to the men trained in that department. That first assistant, Frank James, has now been promoted to the job of administrative assistant to the president of Food Fair's divisions in north Florida and Georgia. Other of the economists have moved into similar management jobs in the company's Miami and North Jersey divisions, and two analysts have been moved into the Real Estate Dept. The department, Marcus says, "has been a breeding ground—a good training area." Food Fair, always a company to emphasize "scientific management," obviously has found that the economist's approach can pay off. **END**



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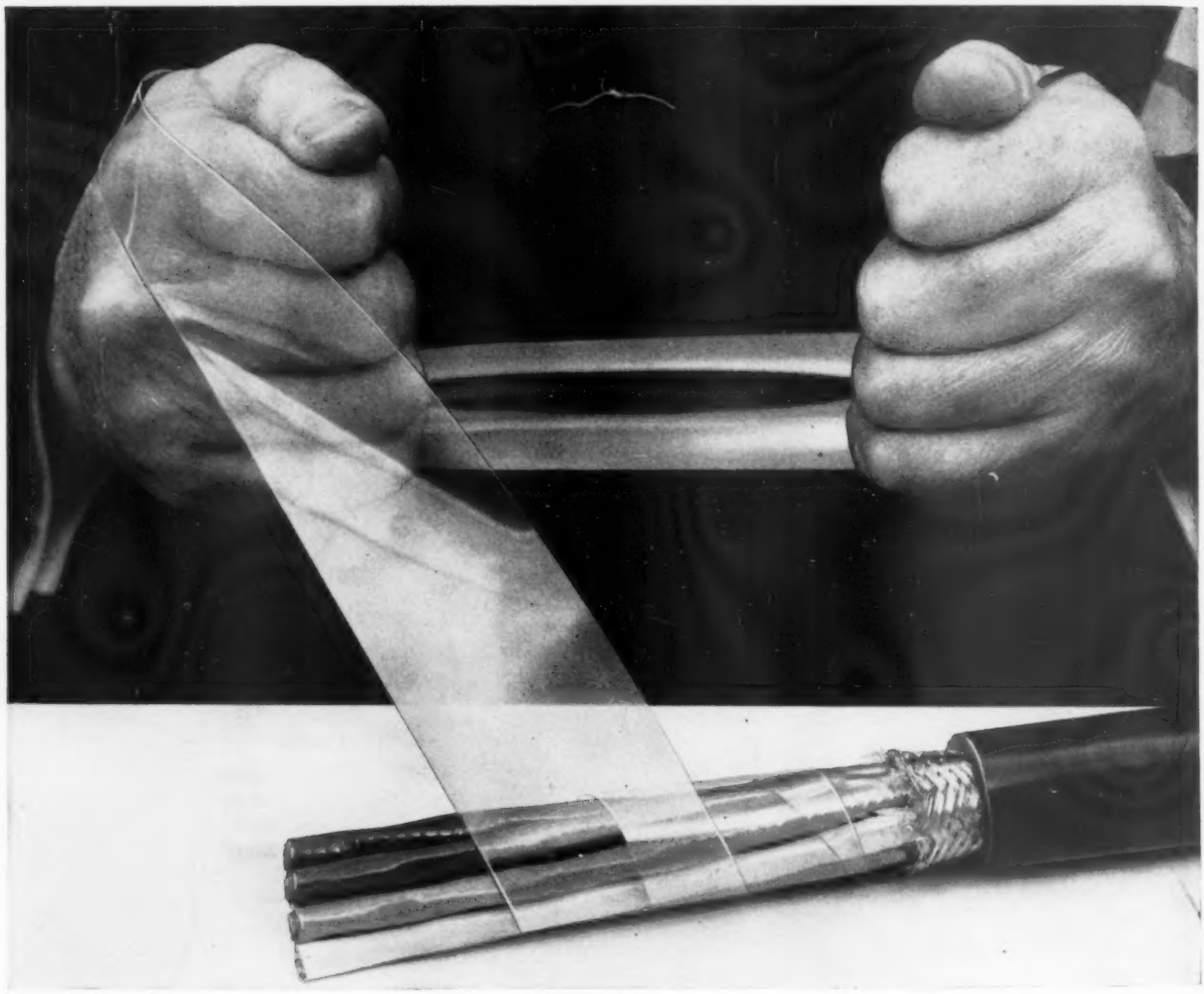


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Take-off, Catch-up, Satiety

Those are the crucial stages in W. W. Rostow's controversial theory of the growth of national economies.



PROFESSOR of economic history at MIT, Rostow is a Yale graduate and former Rhodes scholar. He served in wartime OSS, has taught U. S. history at both Oxford and Cambridge.

Walt Whitman Rostow, a 43-year-old professor of economic history at the Massachusetts Institute of Technology (picture), has discovered how swiftly a social thinker can become an international celebrity nowadays—hailed in some quarters as a major prophet, denounced in others as a fraud.

Rostow's rise to fame stems from a set of lectures on The Process of Industrialization, delivered to a group of undergraduates at Cambridge University in the autumn of 1958, while he was on sabbatical leave from MIT. The London Economist boiled down and published the lectures as two articles in August, 1959. Since then, Rostow has been:

• Denounced by Pravda as a "conjuror" who made the class struggle vanish, a frightened "snipe," whistling and screaming in the capitalist bog.

• Praised by a Harvard Business School professor, Wilson Nolen, for presenting ideas that "will have a more profound effect on world affairs than any other contribution by an intellectual since the collapse of the old world order during World War II."

• Damned by a McGill University economics professor, David McCord Wright (writing in Fortune), for presenting a theory of history that claims to have "definiteness and predictive value." But, says Wright, "a very little research will show that there is not a single one of Rostow's supposed definite relationships that can in any way be relied upon." Wright further attacks Rostow for offering advice on economic development that is "not merely inadequate" but "downright hurtful." Wright is mad at Rostow for the mirror-opposite reason to Pravda's: for allegedly making the individual free enterpriser vanish from the growth process.

Cynosure—Rostow has since presented his ideas before the Joint Economic Committee of Congress, before the Institute of World Economy & International Relations in Moscow, and before the American Economic Assn. in Washington (where the crowd that collected to hear him burst the limits of the original meeting place and had to be transferred to an exhibition hall).

He has excited fervent interest in underdeveloped countries. African leaders have written to him about their struggles. And he has put his ideas into one Eisenhower speech on disarmament and become one of the key intellectual advisers to Sen. John Kennedy. He is even being consulted by Arthur D. Little, Inc., the management consulting firm in Cambridge.

As a result of this dash to fame, Rostow is threatened by many an academic knife. Many will be flung after this week, when Rostow's ideas will issue forth in two books: The Stages of Economic Growth: a Non-Communist Manifesto (Cambridge University Press, 117 pp., $1.45) and The United States in the World Arena (Harper & Bros., 568 pp., $8.75). With these works in hand, the world can now get a full and fair look at the ideas Rostow has to offer.

Five Stages—The key idea is that all nations of the world fall within one of five stages of growth:

• First, the "traditional society," essentially poor and stagnant. It has not yet learned how to apply modern science and technology regularly and systematically.

• Second, the transitional society. In this, what Rostow calls "the preconditions for take-off" into sustained economic growth are being established.

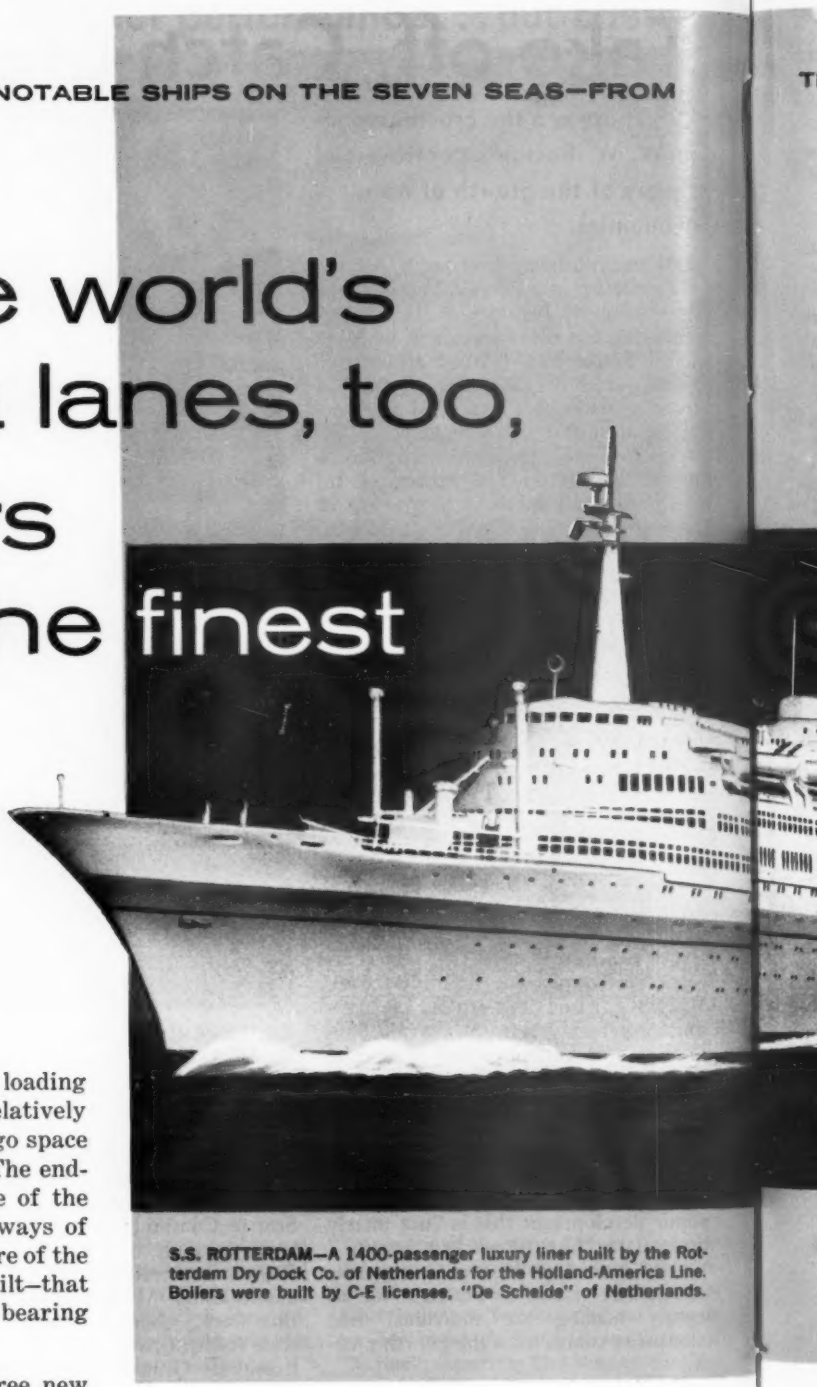
• Third, the take-off—"the great watershed in the life of modern societies . . . the interval when the old blocks and resistances to steady growth are finally overcome." Here is Rostow's crucial metaphor, the idea that an economy, like a missile, finally gets off the ground, swoops upward, and goes into orbit. Growth becomes the normal condition after take-off; "compound interest"—steadily rising productivity—becomes built-in.

• Fourth, the "drive to maturity," culminating when the society has extended modern technology over the whole front of its economic activity.

• Finally, some time later, the economy reaches "the age of high mass-consumption." The masses of a population gain command over all kinds of consumer goods and services—autos, TV sets, Florida vacations—that transcend

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Four such vessels are shown here: three new tankers, and the beautiful new liner Rotterdam, pride of the Netherlands. Boilers for one – S.S. Faith – were fabricated in C-E shops in Chattanooga, Tennessee, and shipped to Taiwan for installation. Boilers for the others were built overseas – in Holland, Japan and Norway – by C-E licensees.

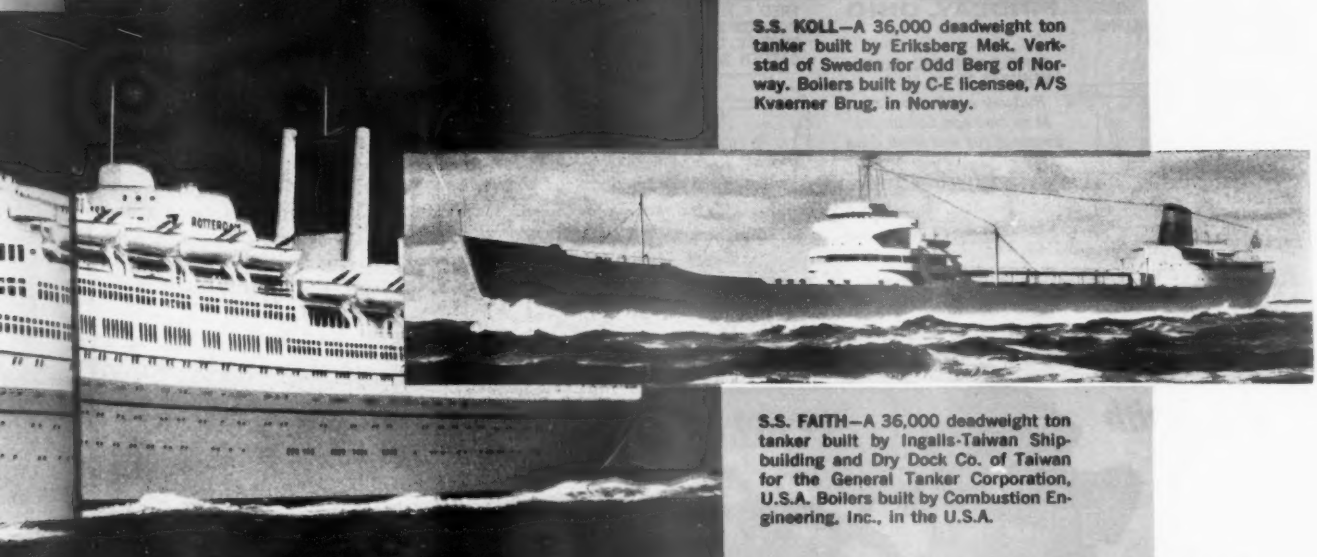
Notable C-E-powered American ships, recently built or now under construction, include three transpacific freighters for American Mail; seven cargo ships for Moore-McCormack; and the three largest ore carriers on the Great Lakes, operated by Bethlehem Transportation, Columbia Transportation and Inland Steel.

But marine activity is only one element of the far broader international C-E picture. For Combustion's network of subsidiaries, associates and licensees provides steam generating equipment of the most advanced designs for utility and industrial plants on all six continents, as well as for ships that sail the seven seas.

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S.S. KOLL—A 36,000 deadweight ton tanker built by Eriksberg Mek. Verkstad of Sweden for Odd Berg of Norway. Boilers built by C-E licensee, A/S Kvaerner Brug, in Norway.



S.S. FAITH—A 36,000 deadweight ton tanker built by Ingalls-Taiwan Shipbuilding and Dry Dock Co. of Taiwan for the General Tanker Corporation, U.S.A. Boilers built by Combustion Engineering, Inc., in the U.S.A.



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basic requirements for food, shelter, and clothing. Rostow's high mass-consumption society is a blood brother to J. Kenneth Galbraith's affluent society.

• **Rostow vs. Galbraith**—Beyond the high mass-consumption society no nation has yet advanced; Rostow disagrees with Galbraith's view that the U. S. is already quite affluent enough, and economic growth is a rather trivial objective. But he does think "we have begun to experience the beginning of the problems of affluence."

Locating societies within particular growth stages is not, for Rostow, a new kind of long-hair parlor game, like deciding what people or places are "in" or "out," or Norman Mailer's "hip vs. square." On the contrary, Rostow sees his stages of growth as the grand dynamic of modern history. And he thinks this dynamic is regular enough to provide a good instrument for prediction. "Some 60 years after take-off begins (say, 40 years after the end of take-off) what may be called maturity is generally attained," he asserts.

• **Timetable**—Rostow has given the following "tentative, approximate" take-off periods and maturity dates. He defines maturity as the time when an economy "demonstrates the capacity to move beyond the original industries which powered its take-off"—and thus apply modern technology to produce whatever it chooses.

Nation	Take-off Period (Stage 3)	Maturity (End of Stage 4)
Great Britain	1783-1802	1850
France	1830-1860	1910
United States	1843-1860	1900
Germany	1850-1873	1910
Sweden	1868-1890	1930
Japan	1878-1900	1940
Russia	1890-1914	1950
Canada	1896-1914	1950
Argentina	1935-	not yet
Turkey	1937-	"
India	1952-	"
China	1952-	"

Rostow recognizes that his readers may wonder why he has given only "rounded, symbolic dates for arrival at maturity," whereas he has given "more precise dates" for the take-off periods. His reason for doing this goes to the heart of his theory of growth. Rostow thinks that growth begins with the rapid development of some particular industries, and that take-off dates for each industry can be discovered by a careful analysis of the historical record. But arrival at "maturity" is tougher to date, says Rostow, because it doesn't necessarily bring with it "the prompt launching of the next stage, with new leading sectors." There might be a long interval before the age of high mass-consumption is launched.

For instance, nations, after reaching maturity, may fritter away their time in military ventures. But, says Rostow, once the stage of high mass-consump-



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tion is reached, more precise dating again becomes possible—for new leading sectors again clearly emerge, and they expand fast.

• **Rostow's Refinements**—This leading-sector idea is Rostow's answer to the charge that his theory is really old hat—not essentially different from the stages of growth of the German historical school of economics in the 19th Century (pastoral-agricultural-commercial-handwork-industrial). This kind of historical writing, many economists would now say, is merely descriptive, tells nothing about what caused economic development, provides no basis for predicting or promoting future economic advance.

But Rostow doesn't think his theory is sterile or "merely" descriptive. On the contrary, he believes it to be a powerful tool—not only for analyzing, predicting, and organizing economic development—but also for achieving disarmament and world peace.

• **Leading Industries**—For use in national economic analysis and planning, Rostow's stages-of-growth theory works this way: At any period of time, each industry of an economy has an "optimum position"; a sound development program should mean pushing certain key industries toward their optimum positions, counting on those industries to propel other industries into growth, as income and technological knowledge generated in the leading industries are diffused throughout an economy.

Which industries play the dynamic, seminal roles will depend on the state of technology at the time a nation launches its take-off, on its natural resources, on the size and tastes of its population and their income structure. Thus, the first industrial take-off, Great Britain's, was based primarily on the rapid expansion in cotton textiles, which followed from such developments as Eli Whitney's invention of the cotton gin, the improvement of the steam engine, and an iron technology based on British ore and coke.

• **Who's an Entrepreneur?**—Rostow doesn't contend that all this happens like an act of nature; it depends significantly on the "quality of entrepreneurship" at any period. Entrepreneurs, in Rostow's conception, can just as readily be government officials as businessmen. They play the crucial role of deciding what innovations are technically available and potentially profitable, either in dollars and cents or (in the case of a socialist economy) in sparking national economic growth or building national military power to greater heights.

Rostow concludes that this job of applying modern technology continuously to an economy's resources can be done by capitalists, Communists, or any other brand of "entrepreneurs." This is

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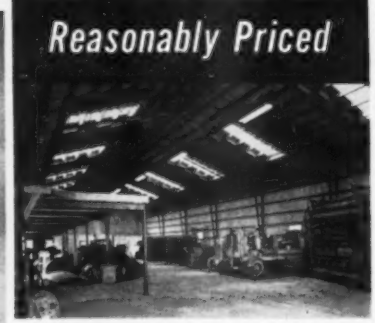
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what infuriates both Pravda and Fortune.

The Russians, following Karl Marx, admit capitalists did the job in the past, but think the class struggle will finally cause capitalist growth to end; only a "classless society" can grow continuously, they maintain. Fortune, and many other conservatives, concede that the Russians have made dramatic gains, but contend that thus far they have fed on the progress made possible by free men; finally, they believe, slavery will mean stagnation—only freedom can progress permanently.

• **Key Challenge**—Rostow, however, insists there are many roads to economic growth; he conceives of his own contribution as a "non-Communist manifesto" (Pravda insisted on calling it an anti-Communist manifesto) because of his own powerful preference for the civilization of a free society. Rostow nevertheless finds that the Communist approach to growth can work. He thinks the Communist approach has its greatest chance for seizing power and doing the development job during the period of "preconditions" or the early phase of take-off, when there is great confusion and conflict between the traditional leaders and the modernizers, or among the modernizers.

In that setting, says Rostow, the Communists may be able to seize the opportunity to supply one of the most essential conditions for take-off: an effective modern state organization.

That danger leads Rostow to think that the central challenge to the free world is creating a partnership with the passionately nationalist leaders of the "new" countries of Asia and Africa, in order to launch them on their take-offs in such a way as to "keep open the possibility of democratic development."

• **Application to Politics**—This is where Rostow's ideas on U. S. relations with the Soviet Union—and on disarmament and world peace—come in. For he thinks the Soviet Union, which has already passed the point of technological "maturity" and may fast be on its way to becoming a "high mass-consumption economy," has the same interest as the U. S. in promoting healthy and continuous growth of the have-not countries. In any case, the poor countries cannot be long held in check—for they have the models of the successful to follow.

In his lecture in Moscow, Rostow told the Russians that, as the new nations launched their take-offs and came into the world arena, the prospects were that neither the U. S. nor the Soviet Union could effectively control these new and probably rambunctious powers. (For the Russians, Rostow was clearly pointing to China.) As atomic weapons spread, these new nations might be able to precipitate a

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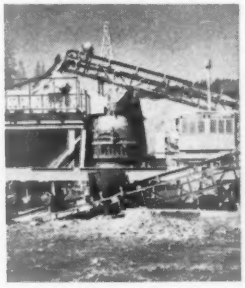
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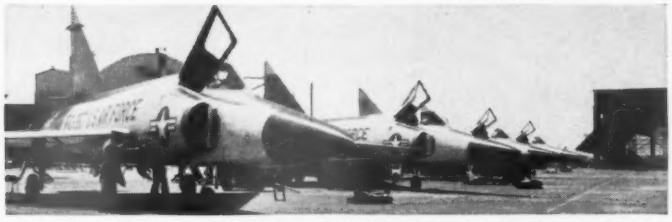
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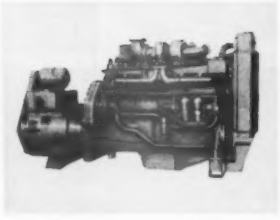












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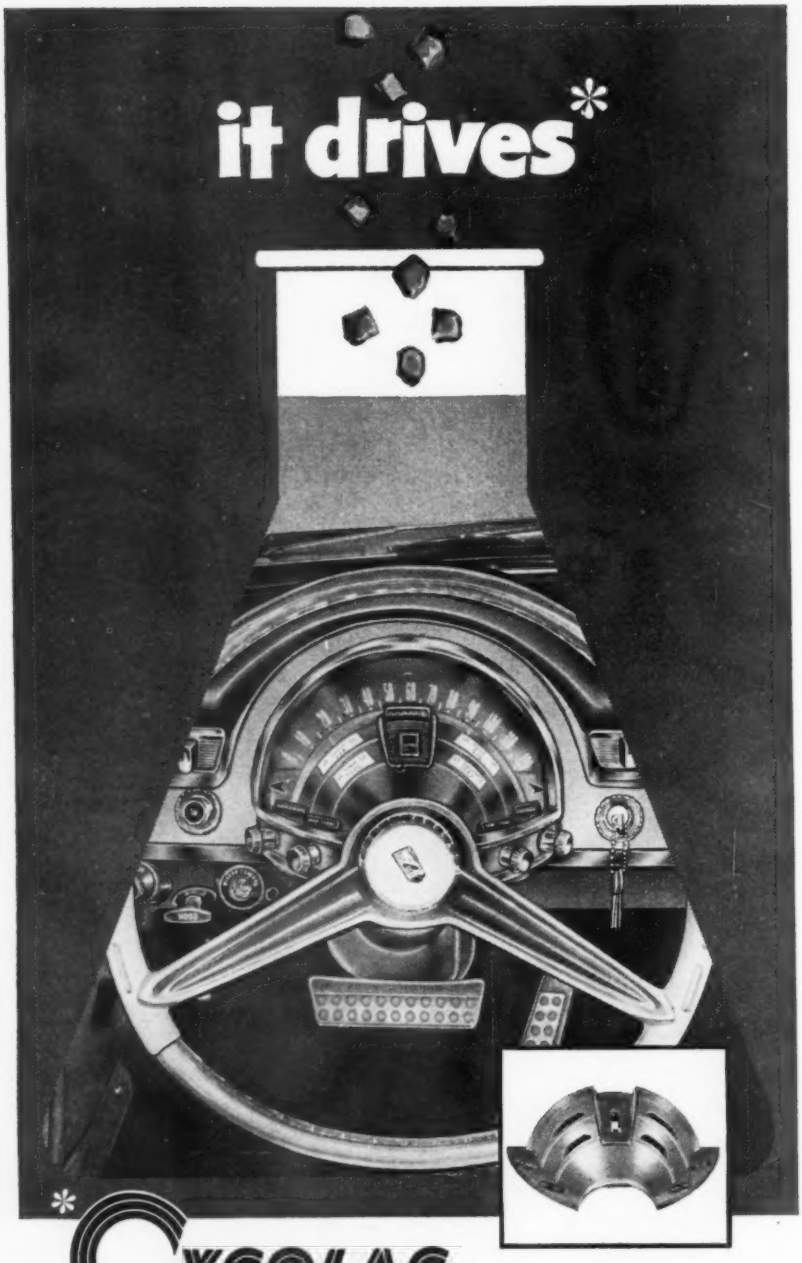
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war that would be equally disastrous to Russian and to American interests.

• **Grim Choice**—The stages-of-growth theory, Rostow told his audience, means diffusion of power: Relative primacy—yours and ours—is transient. But we still have some time, he added. Rostow cautioned that the U.S. and Soviet could use that time to contest with each other, or dissipate that interval "in a cold war for which history will offer us little respect and little thanks" —or "destroy each other and most of the planet in a hot war, if we fail to maintain our poise and good sense."

But, said Rostow, there was another alternative: using the interval to create an effective system of arms control, and concentrating efforts to make that system work. "The common objective," he declared, "should be to make the system of arms control so solid and secure over the coming decades that as the new nations move to technological maturity, they enter a world of orderly politics rather than one where the power struggle persists with weapons of mass destruction still one of the pawns."

Rostow urged the Soviets to recognize that the advanced countries are approaching a period when they should be looking beyond "geometric progression forever," beyond "an interminable race in index numbers of industrial production." He argues that the end of the human adventure is seeing "what man can and will do when the pressure of scarcity is substantially lifted from him." He told the economists who heard him in Moscow (repeating Keynes' toast before the Royal Economic Society in 1945) "we are the trustees not of civilization, but of the possibility of civilization." There might not be much civilization left to save, Rostow said, unless both sides deal with the challenge implicit in the stages of growth.

• **Lifelong Theme**—Rostow has thus plunged far beyond the limits of economics, in assuming the mantle of prophet and peacemaker. When the academic artillery completes the assault on the technical part of his structure, parts of it may be blown to smithereens. But his broad social and political ideas are bound to go on stirring up excited thinking—in Washington, Moscow, Peking, and elsewhere.

Rostow is not just a man who suddenly had one bright idea. He was born in New York, lived in Irvington, N. J., until he was 10, then moved with his family to New Haven—where his older brother, Eugene Victor Rostow, is dean of the Yale Law School. From undergraduate days at Yale, he has been working with the ideas that have ripened into his two new books. His two themes, from his late teens on, were the interplay of history and modern economic theory and a critique of Marxism. **END**



Vaughn Haynes, right, manager of production engineering, discusses "trap" line scheduling with Wilfred Pascoe, superintendent of press room.

Chrysler blanks strip steel by "trap" shearing on Wean coil processing line

Trapezoidal shearing from coil is, in many cases, the most economical way to prepare blanks for subsequent press operations. Two, independent, pivoting shear heads allow selection of the most economical proportions of the blanks for the finished shapes. This "tailoring" of the material to the end parts eliminates much of the material loss that would result if these same parts were stamped and drawn from square-cut sheets.

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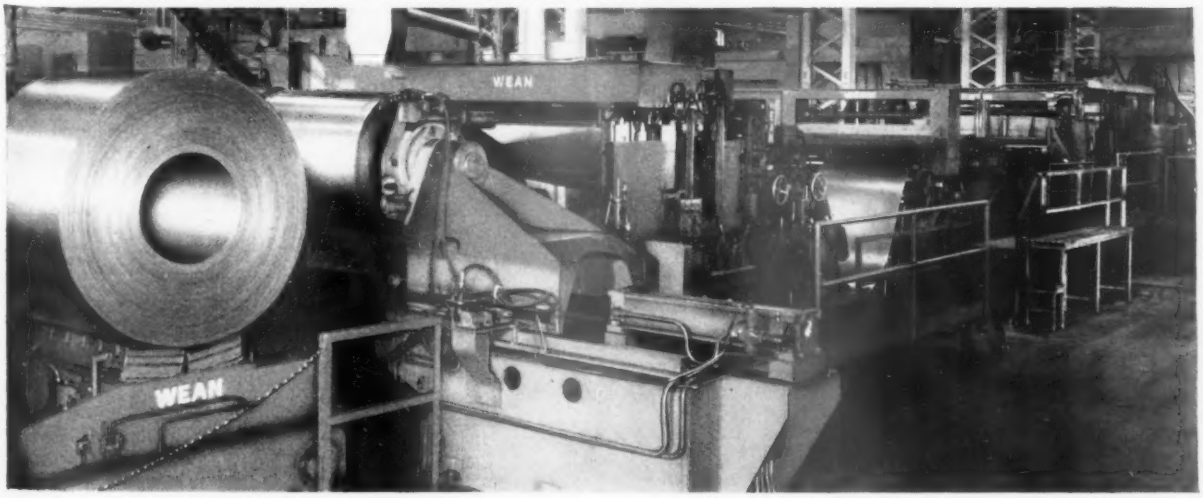
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Wean trapezoidal shearing line at Chrysler's Twinsburg Stamping Division plant produces blanks for body stampings from coils weighing up to 30,000 pounds.



MARKETING

Pealing Out the Corporate Image



DEDICATION of Equitable Savings & Loan Assn.'s carillon in Portland, Ore., draws a big audience. John Klein, carillonneur at Brussels World Fair, plays opening concert.



BRONZE RODS are "bells" for carillon installed at Mutual Federal Savings & Loan Assn. in Norfolk, Va. When amplified electronically, their musical tones can be heard for miles.

Pennsylvania carillon maker finds big market among commercial institutions that want to build up community relations.

Since medieval days, the music of carillons has been a familiar sound in cities and villages all over Europe. Big bells were among the early emigrants to the New World, where for centuries they have summoned the faithful to worship.

The carillon—a set of 23 or more bells, tuned chromatically—was developed by the Flemish in the 15th Century. Up to now, the European craftsmen have dominated the market for these sets of bells.

This month, an American company—Schulmerich Carillons, Inc., of Sellersville, Pa.—sounded a new note. It announced its expansion of European operations by opening a plant in Dublin to assemble U. S.-made parts. It already has a sales office in Geneva.

• **Younger Generation**—The modern carillons that Schulmerich will assemble in Ireland will bear little resemblance to their ancestors. But the final tonal effect is the same as that of the traditional cast-bronze carillons.

These "carillonic bells," invented by Chmn. George Schulmerich, founder of the company, consist of a set of small bronze rods (bottom picture) that are struck by little hammers. The resulting sounds, amplified thousands of times electronically, are well-rounded carillon bell tones that can be heard for 20 miles.

• **New Customers**—Schulmerich's foray into the European market isn't the only company news. Over the past two years, the carillon maker has created a market for carillons among banks, savings and loan associations, department stores, and other commercial institutions. Churches, of course, still remain Schulmerich's best customer group. Churches, colleges, shrines, and memorials now account for more than 6,500 installations. But commercial sales are expanding rapidly. Before the company's "Pied Piper" marketing program was introduced two years ago, commercial sales accounted for only 3% of total volume. Now the percentage has jumped to 25% of sales which last year exceeded $2-million.

Owners of Schulmerich carillons include Florida's Bok Singing Tower; North American College in Vatican City; Arlington National Cemetery; Vienna Opera House; Bank of the Commonwealth, Detroit; Pacific National

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NEW CONCEPTS IN PRACTICAL OFFICE AUTOMATION

Bank, San Francisco; National City Bank of Cleveland; Florida National Bank & Trust Co., Miami; Irish Independent (Dublin newspaper); Manufacturers Life Insurance Co., Toronto.

• **Indirect Route**—Schulmerich became interested in bells in an indirect way. As a young man in Philadelphia he went into the radio business, then shifted to making and installing public address and broadcasting systems. This brought him in contact with churches, where his systems broadcast religious services. He was struck by the fact that so few churches had bells—less than 60 in the 1920s—and the few that did wanted more musical bells. He set out to develop inexpensive carillons with a wider musical range.

• **More for Less**—The result was a carillon system with many more bell tones at a price ranging from $3,000 to $25,000, depending on the type of installation, number of bells in the set, and the capacity of the amplifying equipment. Varied tonal qualities—including harp bells, celestial bells, and chime bells—mean that the carillons can play anything from pop to concertos.

Because of their small size, Schulmerich's bells use much less bronze than the old-type bells. This was a real breakthrough. Old cast-bronze carillons, weighing 79,000 lb., would have cost about $50,000. Also, they needed towers able to hold all this swinging metal, and a trained carillonneur.

Schulmerich's carillonic bells can be played automatically with plastic perforated music rolls—much like the old player piano rolls—which play anything from the Westminster chimes to a full day of carillon music. There are more than 3,000 selections on rolls. (The customer gets six selections with his unit; additional selections cost $6 each.) Timing devices control the music for playing at set hours. The bells also can be operated manually from a single, chromatic keyboard or special organ console.

• **New Strategy**—Schulmerich's first commercial installation came about in 1946 after the president of the Florida National Bank & Trust Co. heard a demonstration at a church convention in Miami. But in the following 12 years the company made only 35 such sales.

Schulmerich began to revise his marketing strategy when he noted the community response that his bell systems aroused in the few banks that had them.

"It became evident that this was a big field when I heard what some of these banks were doing with the bells," said Schulmerich. "If its functions were expanded and the bank properly guided, the bells could serve as a useful tool in building community relations for the banks. So we created a program based on what the banks could do with the bells, and, more important, what the bells could do for the bank."

Now Schulmerich had his message, but he still had to deliver it. Churchmen knew him, but most commercial people had never heard of him. So he went to business and bank conventions to "show" his product.

• **The Corporate Voice**—Prospects were given an outline telling them briefly how the bells could help and the aids that Schulmerich would furnish. Once a financial institution showed interest, it received a detailed public relations booklet—90-odd pages crammed with ideas for using the bells to get the maximum amount of publicity and community goodwill for the bank. Also included were suggestions for using the carillons for the benefit of the community—for example—for civil defense broadcasting to warn of fire, flood, or other calamity.

• **Salesmanship**—Schulmerich carillons are sold on an exclusive basis. The company will install more than one in a town, but it has to be careful. For instance, a Texas firm bought one and another company wants to install three only 10 blocks away. Schulmerich would love to sell those three, but he won't. "We can't afford to have any dissatisfied customer," he says.

But even though the bells are sold on an exclusive basis, Schulmerich still sees a big potential in this field. He notes that banks, and particularly savings and loan associations, are moving away from their past coldness and austerity, toward a warmer approach to the community. Schulmerich believes his bells are just the right vehicle for this end.

The population shift also is giving the carillon business a nice boost. With more and more people migrating to the suburbs, churches have been forced to follow their congregations. And when the churches and their carillons move out of a business district, they leave a musical gap that the banks can fill.

• **Musical Diplomat**—In at least one case, a Schulmerich carillon helped solve a community relations problem. In San Francisco, Macy's installed a set when it bought the O'Connor, Moffatt & Co. store in 1945. Old-line San Franciscans tended to resent the replacement of a beloved retail institution by what they regarded as an interloper, and Macy's did a number of things to overcome this prejudice. One of them was the bells.

The management feels that the carillons helped to accomplish the purpose of creating a tradition that would endear the store to its neighbors—although at first there were squawks from nearby hotels for disturbing the early-morning peace. Now the bells toll only the daylight hours and play a five-minute concert at 5:30 p.m. When the system breaks down mechanically, the store gets calls from people who miss the bells. END

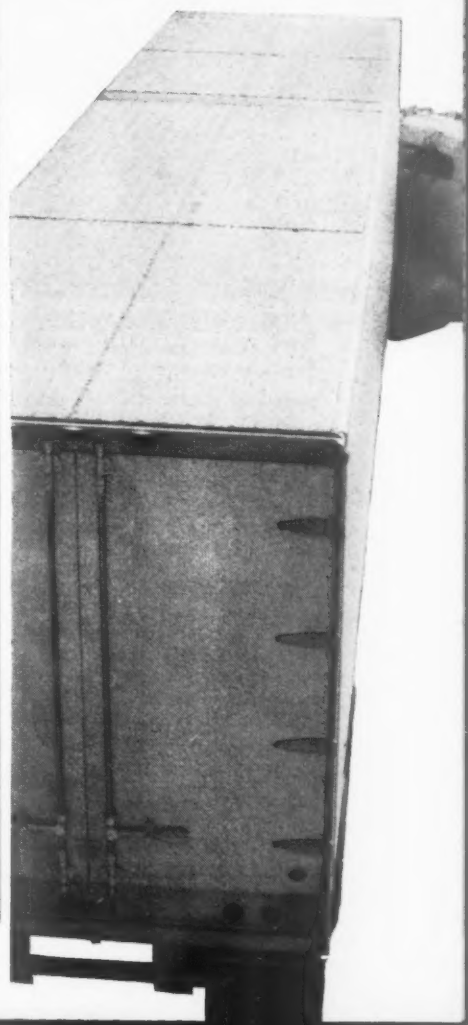
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NIAGARA MOHAWK

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Sunbeam Test . . .

. . . of distributor-agent marketing setup takes eastward step, as company moves into electronics.

This week the test program Sunbeam Corp. started on the West Coast a year ago to stabilize the marketing of its portable electric appliances (BW—Dec. 20'58,p87) was taking a tentative step eastward.

On Apr. 1, Sunbeam added five states —Arizona, Idaho, Montana, Nevada, and Utah—to the three in which its distributor-agent consignment experiment was started. The test program was launched in California, Oregon, and Washington Jan. 5, 1959.

• **Other Changes**—The Chicago company also announced two other developments:

• Stockholders voted to acquire John Oster Mfg. Co., Milwaukee and Racine electronics producer, presaging a Sunbeam diversification into electronics. Oster (1959 sales reported to be over $35-million) also makes barber and beauty supply equipment, health appliances, and electrical housewares.

• L. W. Prestin, since 1956 head of Sunbeam's Canadian subsidiary, was named vice-president and director of marketing—a new position—effective May 1. Vice-Pres. C. C. Mendler, who has been in sales, was made head of sales product development, a new activity.

• **More Evidence**—Sunbeam says that so far reaction to its marketing program test has been favorable. But it hasn't yet "sufficient evidence" to extend it to the entire country. In the West, distributor-agent territories constitute a more clearly defined area than elsewhere.

The distributors function as agents; they receive a commission, but do not buy or take title to the merchandise. Only consigned items among portable appliances are included.

Sunbeam sources explain that the program is designed to bring a firmer pattern to marketing procedures. Sunbeam sells directly to dealers through its distributor-agents. This means, it says, that dealers have "equality of buying"—in other words, every dealer gets the same break. Distributors don't have to tie up money in inventory, but are assured of a fee for handling goods consigned to them on the basis of past sales records.

As for prices, Sunbeam, a fair trade leader, discontinued fair trade in 1958. Later, it set floors below which its franchised dealers may not advertise prices, without restricting actual sales prices (BW—Jan.31'59,p45). END

Climate by Chrysler



Blue Cross-Blue Shield Building, Detroit, Michigan. Air conditioning system designed and installed by W. T. Heany Co., Detroit.

Chrysler Packaged Air Conditioning cools Blue Cross-Blue Shield Building for $1.58 per sq. ft.

Question: What's the most economical way to keep 1700 people cool and comfortable in a building where there's no space for a large central air conditioning system? *Answer:* Build up a system of versatile, space-saving Chrysler Packaged Air Conditioners.

That's the method used in cooling Detroit's 7-story Blue Cross-Blue Shield Building. And the entire job was done with 62 Chrysler units for a total installed cost of only $1.58 per square foot of air conditioned space.

For large open work areas, strategically placed Chrysler Packaged Air Conditioners fit neatly against the building columns. Four-way air distribution keeps everyone comfortable and work efficiency up. For private offices, cool, filtered air is delivered through inexpensive ductwork.

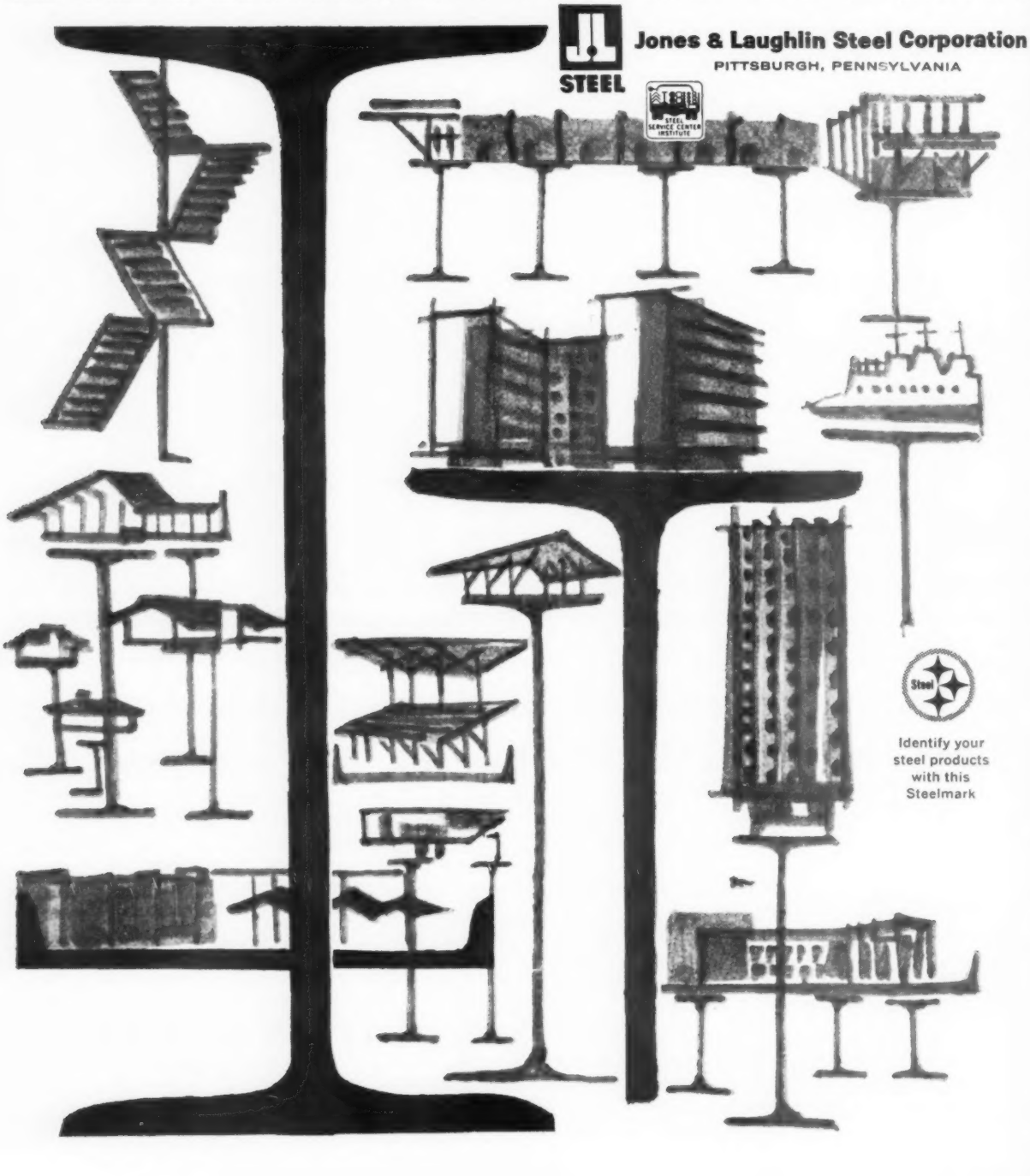
The Blue Cross-Blue Shield Building is an outstanding example of two basic advantages of Chrysler Packaged Air Conditioning: Flexibility and economy. There are many, many more. Get the full story from your local Chrysler Air Conditioning Dealer. His name and address are listed in your Yellow Pages.

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In Marketing

• • •

Babbitt's Honey-Vinegar Health Product Stirs Wrath of Food Drug Staff

The Food & Drug Administration has declared war on honey and vinegar, at least when combined into Honegar.

At Albany, N. Y., last week, FDA seized 5,000 cases of the concoction, which is marketed by B. T. Babbitt, Inc., maker of Bab-O cleanser.

FDA admits it had to scrounge for a legal reason for the seizure. The charge: misbranding. **The product, says FDA, does not bear "adequate directions for use."** It concedes that the label on the bottle is harmless enough; the label merely recommends Honegar for "greater zest in drinks, basting, marinating" and the like.

The real catch is that the product, which Babbitt acquired recently, was "inspired" by a book, Folk Medicine, by Dr. D. C. Jarvis. Jarvis has no known connection with Babbitt, but the book points out that honey with vinegar (it does not mention Honegar, Babbitt says) has been used as a remedy for arthritis, belching, obesity, heart attacks, sterility, and mental retardation.

Honegar bottles have carried tags promoting the book, and some retailers have featured the book with their Honegar displays. Babbitt says, though, that the tag made no claims for the therapeutic value of Honegar.

Pres. Marshall S. Lachner says Babbitt's Honegar Div. was "dumbfounded" by the FDA action. "We believe any housewife concerned with her family, and indeed any doctor, will agree that these two nutrients—honey and vinegar—have only beneficial properties," he says.

Babbitt has removed the offending tags, although it insists that such tie-ins are legal.

• • •

Zenith to Apply for Pay-TV Tests For Three Years in Hartford Area

As promised, Zenith Radio Corp. is getting set to test pay-TV. Together with RKO General, Inc., the General Tire & Rubber Co. subsidiary that owns four TV and six radio stations, it last week announced plans for a three-year test in Hartford, Conn.

RKO General will apply to the Federal Communications Commission "within the next few weeks" for authorization to conduct the test. It will also seek FCC's consent to purchase of UHF station WHCT, over which the tests will be broadcast.

The announcement follows hard on the heels of a test in Canada by International Telemeter Corp., subsidiary of Paramount Pictures (BW—Mar.12'60,p131). Telemeter uses a closed-circuit cable setup, but Zenith's Phonovision broadcasts a scrambled picture over the air, with a decoding device on the receiving set.

According to Television Digest, trade publication, **rental for the decoder might run $1 to $2 a month, and programs might cost about $1.** Zenith will probably not use a coin-operated device to start with, at least. Rather, subscribers' decoders will contain a tape that records the number of shows seen, along with the unit price; subscribers will mail in the amount designated periodically.

Trade talk has it, says TV Digest, that Zenith hopes to woo telecasters from their anti-pay position. If Paramount's wired system is a success, broadcasters might face "dangerous competition."

After a month's operation, the Canadian company reported "unanimous praise for the system"—with 1,200 customers on the waiting list.

• • •

FTC Cracks Down on Gimbel Bros., Arthur Murray for Deceptive Ads

The Federal Trade Commission, continuing its crackdown on deceptive consumer advertising, has leveled charges at Gimbel Bros. and the Arthur Murray Dance Studios.

FTC says Gimbels is using fictitious pricing claims for such merchandise as rugs, luggage, refrigerators, and cashmere sweaters. One ad under attack, for example, says that Featherweight luggage, "sold last week at Gimbels for $9.98 to $24.98," can now be purchased for $6.98 to $15.98. In fact, FTC charges, the higher prices quoted are fictitious since the products were not regularly sold or normally retailed at the so-called reduced prices.

The charges against the Arthur Murray Dance Studios allege use of false and misleading advertisements and promotional schemes, and use of unfair or deceptive sales techniques, including the use of "hidden listening devices monitoring conversations with the prospect or pupil." According to FTC, not all winners of various Arthur Murray "decoy" or "bait" quizzes have received the specified number of lessons. Instead, the instruction time is frequently used to sell additional lessons, FTC charges.

Arthur Murray, who has some 450 franchised dance studios operating in the U.S. under his name, replies that only 15% of contest winners took additional courses, and that he has never had salesmen as teachers. On the charge that the quizzes weren't really quizzes, he says 50% of the contestants couldn't answer them.

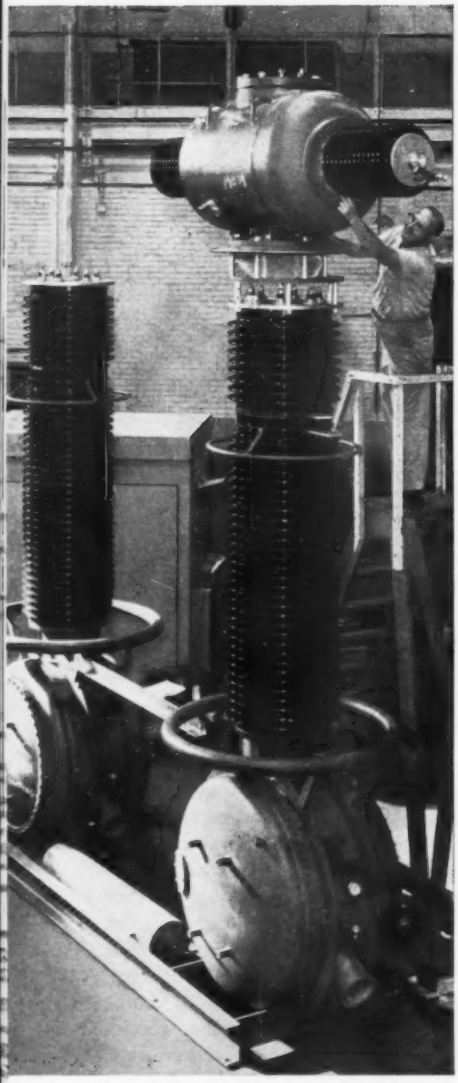
Meanwhile, this week the St. Louis Circuit Court grand jury blasted at the practices of some dance studios, singling out the Arthur Murray operation. The jury did not bring an indictment, but said dance students were morally, though not legally, deceived by sales pressure. It termed the situation a "terribly sordid picture."

• • •

Volkswagen's Engine Takes to Water

A Volkswagen powered boat is now on the market. A new independent company, Inboard Marine Co., of New York, produces the 17-ft. inboard boat, equips it with a 36-hp. air-cooled Volkswagen marine engine. Price: $2,495.

Volks car dealers will sell the Volks-Liner. Some 18 dealers have already been designated in the Middle Atlantic states. Head of Inboard Marine is Bertram Keller, formerly employed by a Volkswagen distributor.

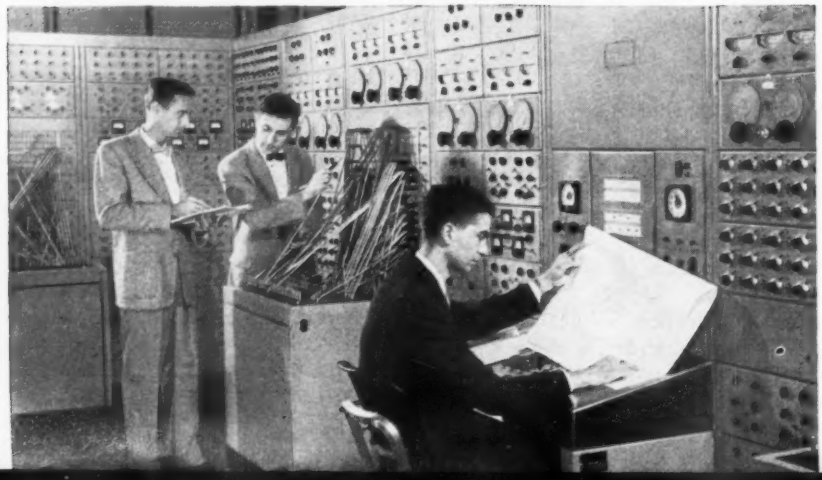


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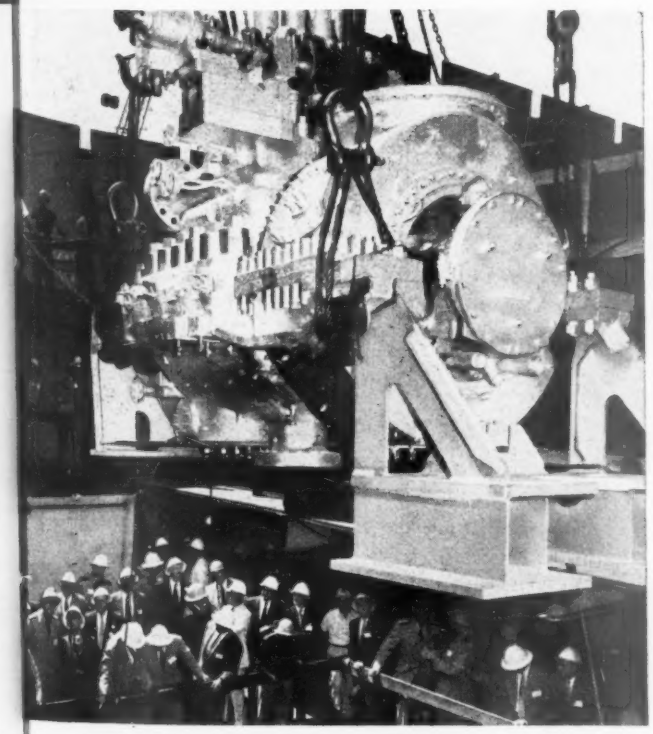
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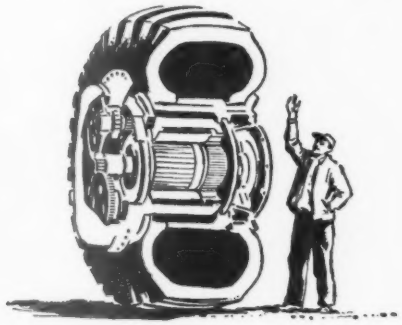
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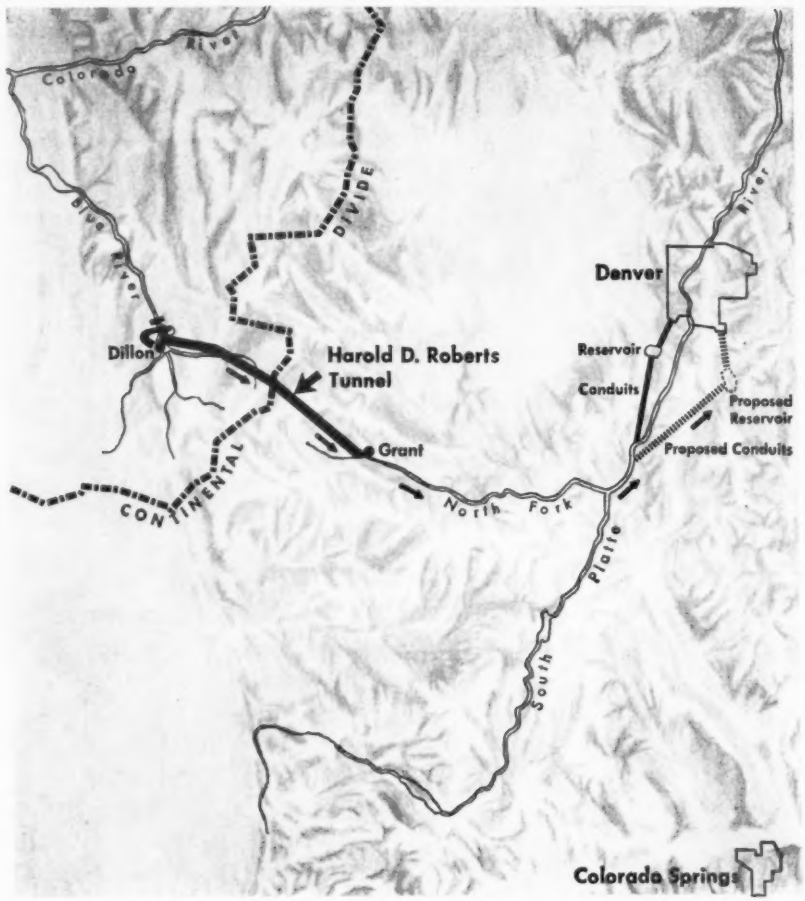
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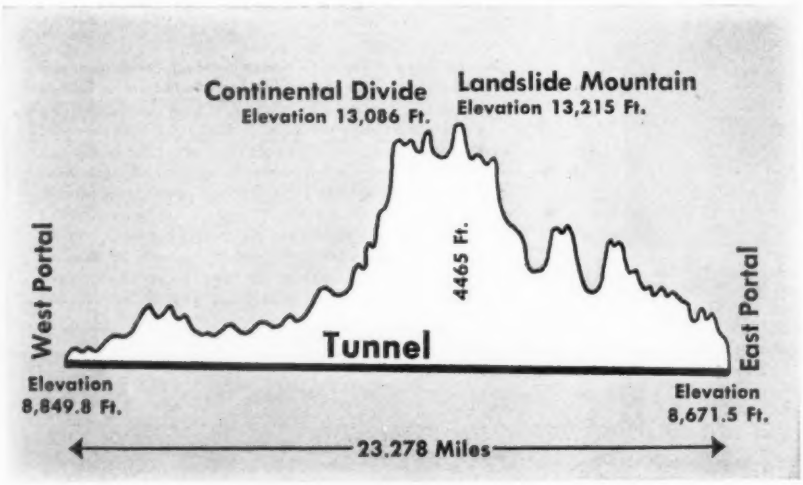
GENERAL ELECTRIC

Denver Bores Its Way to Water

The city has dug a 23.3-mi. tunnel under the Continental Divide to bring western slope water east. The project, when completed in 1962, will end city's water worries.



TUNNNEL for Denver's water project goes through Divide. Below is cross-section view.



Nothing is more essential to a city's growth than ample fresh water. A surplus doesn't guarantee that a city will grow faster than economic conditions justify, but a shortage very definitely puts a crimp in expansion plans.

• **Chronic Problem**—Out West, where growth is habit and water is a fighting word, Denver often has faced the problem of not having enough water for its present needs let alone its future growth. Huddled against the eastern slope of the Continental Divide, it has watched how little water runs down from the snowcapped peaks and how little rain falls from the skies. The city has a normal annual rainfall of only 13.4 in. Enviously, it has seen how much water runs off the western side of the mountains, where there are fewer people within the state boundaries to use it.

The obvious solution to Denver's water problems was to bore a tunnel through the Divide and tap the runoff on the other side of the mountains. This occurred to the city fathers as far back as 1914, but the project is just now becoming a reality. A 23.3-mi. tunnel has been bored through the mountains (map and pictures) and when construction of the over-all project is completed in 1962, Denver's yearly flow of water will almost double—from 60-billion to 110-billion gal. And that, say city officials, should give Denver enough water to grow on right into the 21st Century.

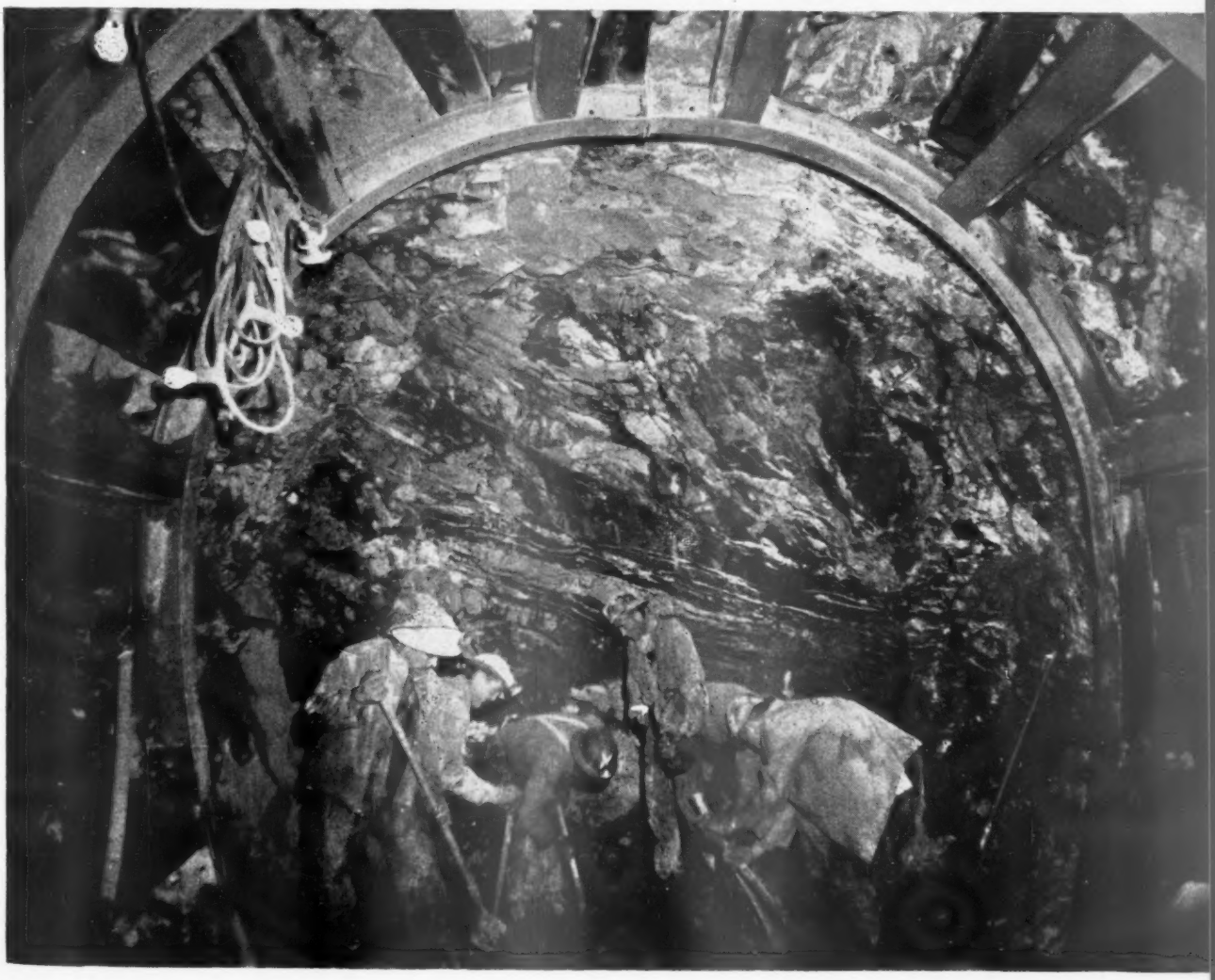
• **Delaying Factors**—There are several reasons why the city took so long to make up its mind to undertake a project so essential to its future growth. For one thing, it was costly. So the city's Board of Water Commissioners looked for cheaper, although short-range, remedies. For another, the people on the western slope guarded jealously their water in hopes it some day would make their area boom. Thus, the question of water rights became entangled in a protracted court battle. In the end, it took the drought that hit the Great Plains states in the 1950s to get things moving.

Ever since Denver was settled in 1859, when someone tapped a spring under a cottonwood tree, the city has had to scratch for water. Its major source of water became the South Platte River, which rises on the eastern slope and flows through the city. In 1914, when Denver's population was approaching 250,000, city officials began talking of the day they would have to go to the western slope for water. In 1916, an engineering firm suggested three possible sources on the western



VALLEY on western slope of mountains will become a reservoir to feed dammed up waters of Blue River into tunnel to supply Denver.

TUNNEL for new water system mostly was bored through solid rock. Crews, working from both sides, "holed through" in February.





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slope: the Fraser, Williams Fork, or Blue River.

In 1918 Denver took over the job of supplying water in the city from private companies. And three years later it proposed a $5-million bond issue for the tunnel project, but voters turned it down. The city's water board then asked a "board of review" to study the problem.

• **Warning**—The review board agreed that water supplies on the eastern slope were inadequate and would hinder Denver's growth. It also warned that "provisions should be made at once to secure a perpetual right to all possible diversion from the western slope."

The water commissioners, meantime, were doing just that. They hired a consulting engineer to look into the acquisition of water rights on the three streams and had him file papers with the state to establish Denver's claims. In 1931, field parties were sent out for "control surveys."

• **Short Tunnel**—Then the water diversion project bogged down. When Denver needed more water in the 1930s, the water board took a cheaper way out. It took over an 8-ft. bore 6-mi. long that had been used to facilitate digging of a railroad tunnel through the Divide. The 8-ft. hole was connected to western slope water by an intricate system of canals. Today, this system brings in one-third of Denver's water.

The post-World War II boom that hit Denver, caused the water commissioners in 1946 to revive the idea of a long tunnel to tap the Blue River. But, actually, they weren't interested in pushing for immediate construction. Instead, they sent a few city employees out to start the work, at a leisurely pace, to give the city greater claim to the Blue River's water.

• **Court Battle**—The matter of the title to the water was not established so easily, however. Western slope interests fought bitterly to prevent Denver and other cities on the eastern slope from establishing a claim to the water on their side of the mountain. Although only 12% of the state's population lives west of the Continental Divide, these people argued that they did not want to lose in perpetuity one drop of Colorado Basin water they some day might want. The western area of the state has a diversified economy based on mining, irrigated agriculture, ranching, recreation, and natural gas.

It was not until 1955 that the U.S. District Court in Denver finally settled the matter. It held that Denver was entitled to the Blue River's water and, further, fixed the date of title acquisition as June 24, 1946—the day the city's workers first picked at the granite terrain. In the 10 intervening years, working years, working at snail's pace, they had bored only 9,986 ft.

Once the court ruled, the water board decided to get cracking and award the job to contractors. The drought that hit Denver in the mid-50s put a lot more urgency into the project.

• **Emergency**—Denver's postwar population surge had just got under way when the drought struck. Defense activities had increased—from construction of the Air Force Academy near Colorado Springs and the Martin Co.'s Titan ICBM plant to a number of electronics plants and laboratories. As the distribution and service center for the plains-and-mountain empire, Denver experienced a new expansion in white-collar employment. And the city also was becoming something of an oil center.

To satisfy the water wants of its people, the water board had to take drastic measures. It drilled emergency wells along the South Platte. It imposed rigid rationing for existing homes. And the board required meters for new homes and major users. Up to then, homeowners were allowed to pay a flat water fee.

Moreover, the board decided it couldn't afford to expand its service territory. It drew a blue line around 115 sq. mi., including 49 sq. mi. outside the city limits, and refused to supply water to anyone beyond.

• **Good Start**—In the midst of these emergency measures, the water board let the $50-million contract for the tunnel, named the Harold D. Roberts Tunnel, after the board's counsel for many years. A group of six contractors started the work in earnest in the summer of 1956. In February of this year the workers "holed through" under the Continental Divide.

Between now and 1962, when the job will be finished, the 10.25-ft. tunnel must be lined with concrete, a dam must be built to back up the Blue River, and the town of Dillon, which will be flooded by the new reservoir, must be moved to the other side of the river and a bit downstream. Then water will start the 94-mi. trip to Denver.

• **Surplus**—With the completion of the long-planned project in view and with more-abundant-than-usual rainfall this year, Denver can breathe more easily. With a two-year supply of water in its reservoirs, the city a few weeks ago lifted the "blue line" and has resumed selling water to other cities. It has signed a contract to supply 20-billion gal. of water to Colorado Springs over a 10-year period. (Colorado Springs, meanwhile, heads the list of a group of cities planning a $33-million project of their own to tap the western slope.) More important, Denver now knows it will have enough water to sustain its growth of population, light manufacturing, and white-collar companies well into the next century. END



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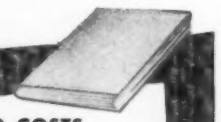
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NEW PRODUCTS

Stainless Steel in Rainbow Colors

Two steel companies simultaneously announced this week the development of chemical coatings that enable them to produce colored stainless steel.

One of these—Washington Steel Corp.—is bringing out sheets and strips of stainless in 11 different hues, ranging from pastels to jet black. Washington's coating is a modified acrylic film that is baked on at moderate temperatures to form a bond with the metal. The company says that the coating stands up under fabrication without failure and weathers well. There's still some question as to how colorfast the process is however; panels in some colors showed slight fading after 18 months of Florida exposure.

For the present, Allegheny Ludlum Steel Corp. is producing its coated stainless only in black and brown, although it plans to add a wide variety of colors after further testing. Allegheny uses a chromate-base coating similar to that found on the inside of metal containers. This is applied to the stainless and cured at 350F.

Why color stainless steel in the first place? The companies say simply because architects and designers want more colorful building materials.

• **Big Gain**—For years, steel and aluminum producers have been vying with one another in the architectural materials market. (A major use: Aluminum or stainless panels are hung like curtains to form the walls of the metal-clad buildings that are appearing increasingly in the downtown areas of large cities.) Aluminum has held a strong lead most of the time since World War II. Besides being lower priced, it can be anodized and dyed to supply designers with building materials in a number of different colors.

• **The Cost**—Washington Steel figures its coating raises the price of stainless about 12¢ per sq. ft., making it a little higher priced, but competitive, with color anodized aluminum.

Allegheny Ludlum hasn't established prices yet. It expects that in most cases, color will go on after forming (though it can be applied before or after), and to this extent, the cost will be determined on a job basis.

Cargo Containers Speed Jet Loading

A mechanical system for facilitating ground-handling of freight and baggage has been developed by Lockheed Aircraft Corp. for Pan American's Boeing 707 Clippers. Seven aluminum cargo containers each hold 1,500 lb. of cargo. These are towed on carts to the plane and rolled one at a time onto a conveyor loading platform. A fork lift raises the platform to the plane's cargo compartment, where the container is rolled on to a conveyor track in the plane. Then the lift picks up the next one. The hull-shaped containers lock in place. Lockheed says a plane can be fully loaded in about 10 min. The system has already been installed in six Pan Am jets based in Miami.

American Airlines uses glass fiber containers in a somewhat similar way to load its 707 jet Flagships. But most of the other airlines still do it by hand.



Family Movies With Sound Track

A new 8-mm. sound projector will add sound to a lot more home movies, says Eastman Kodak Co., its manufacturer. Kodak claims that the quality of reproduction is high enough to attract some of the audio-visual aid market (industry, schools, government, and the like) as well.

The user takes movies on any standard 8-mm. film. After the film is processed, Kodak adds a magnetic oxide coating to its edge. Commentary or other dialogue can be recorded through a microphone as the film is projected, and there is an input for making a sound track from a tape recorder or phonograph. The unit has a built-in 2 in. by 10 in. oval speaker. List price is $345.



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These aerosol can caps for two well-known products are molded by Gilbert Plastics from SUPER DYLAN high-density polyethylene. This tough, strong plastic is durable, will not chip or dent. The unique cap design protects the spray nozzle and makes the cans easy to stack, saving valuable counter display space.

SUPER DYLAN is dimensionally stable, light in weight, rustproof, and chemically inert. It has a smooth, glossy finish and can be molded in any color desired. Its ease of molding makes it possible to create caps for any size or shape of can.

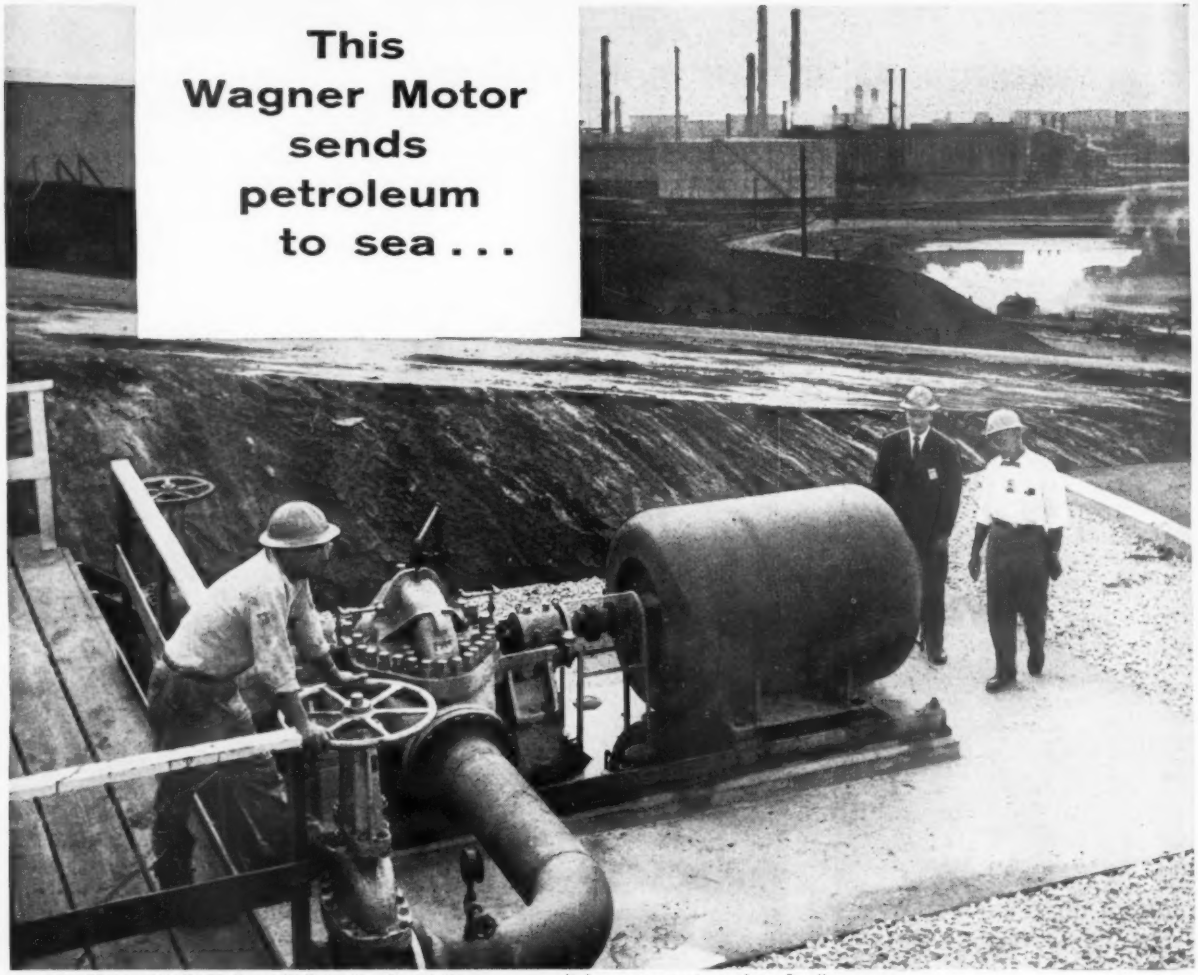
SUPER DYLAN is "tops" as a packaging material. It can be molded into bottles and jars for liquids and semi-solids—in colorful, decorative and utilitarian closures for cosmetics and pharmaceuticals—or extruded as boilable, freezable SUPER DYLAN film for food packaging. For more information, write to Koppers Company, Inc., Plastics Division, Dept. BW-4, Pittsburgh 19, Pennsylvania. Offices in Principal Cities, In Canada: Dominion Anilines and Chemicals Ltd., Toronto, Ontario.

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KOPPERS

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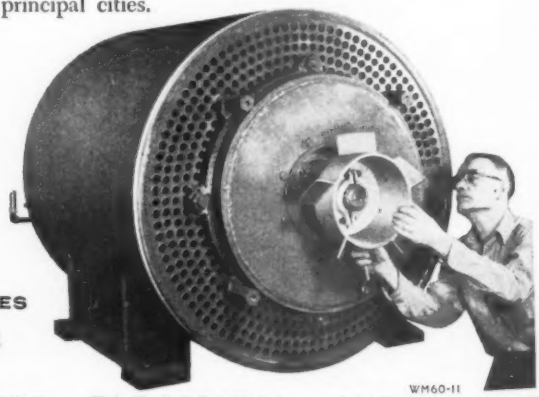
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These motors have fabricated steel frames that contain a series of tubes (as shown in photo below) through which cooling air is forced by an external blower. Internal blowers, one at each end of the rotor, circulate the warm air inside the motor through ducts in the rotor and stator and around cooling tubes. This effective cooling system holds the operating temperature of the motor within specified limits to lengthen motor life.

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Democrats Want New Hanford Reactor To Be Used for Power Production

Democratic members of the Joint Committee on Atomic Energy are recommending this week that the plutonium production reactor now under construction at Hanford, Wash., be built to turn out electric power, too. **Converting the project into a dual-purpose facility would provide 636,000 kw. of power for the Pacific Northwest.**

The committee is holding hearings on the Atomic Energy Commission's construction program for fiscal 1961. Rep. Chet Holifield (D-Calif.), chairman of the Joint Committee's subcommittee on legislation, said he will urge including funds for the power installation in the AEC's budget. Sen. Henry M. Jackson (D-Wash.) added his support. But AEC officials still don't want to expand the project.

• • •

Tariff Commission Votes Down New Barriers to Lead, Zinc Imports

In the aftermath of the Tariff Commission's refusal last week to recommend new lead-zinc import restrictions, mining-state congressmen will try to write tighter trade barriers into law. At the same time, the White House is considering replacement of existing import quotas on lead and zinc by slightly increased tariffs, as urged by a minority of the commission.

However, by law these duties must be less restrictive than the current quotas, and they probably will fall far short of the protection being asked by domestic producers.

The Tariff Commission failed, 4-2, to support a mining-bloc drive for tougher treatment of imported metal. But the two dissenting members found that new duties of 3¢ per lb. on lead and 2½¢ per lb. on zinc should be substituted for current import quotas. And this minority view will be cited as a basis for future tariff legislation.

The industry, however, is split on the question of how high new tariffs should be. Some domestic producers favor rates as high as 4¢ per lb., while the leading smelters hold out for considerably lower rates. Present tariffs range from ¾¢ to 1¼¢ per lb.

• • •

High Court Agrees to Hear Appeal By Government in Dixon-Yates Case

The Dixon-Yates power contract, a deflated political football, is to be kicked around some more. The Supreme Court this week agreed to hear the government's appeal from a 1959 Court of Claims award of $1.8-million damages to the Dixon-Yates private power group. It goes on the calendar early in next fall's term.

The Court of Claims upheld the power group's damage claims on the ground that both the Bureau of the Budget and the Atomic Energy Commission were aware that Adolphe H. Wenzell served as adviser to the First Boston Corp. as well as a government consultant in early stages of contract negotiations. First Boston ultimately was named as agent to sell Dixon-Yates securities. Dixon-Yates interests were to build a power plant to supply needs of the Tennessee Valley Authority based on AEC demand.

In appealing the Court of Claims ruling, Solicitor General J. Lee Rankin said the lower court had emasculated the conflict-of-interest law by holding that "acquiescence (even in good faith) by an officer's superiors in his prohibited double-agency excuses the violation." The government argues that Wenzell's conflict of interest was valid grounds for nullifying the contract.

• • •

Justice Dept. Files Antitrust Charges Against Alcoa and Gamble-Skogmo

The Justice Dept. took on two new anti-merger cases and was hit with a Supreme Court challenge in a third case last week.

In the new cases, **the antitrusters charge:**

• **That Aluminum Co. of America violated the Clayton Act's anti-merger provisions in acquiring Rome Cable Corp., in March 1959.**

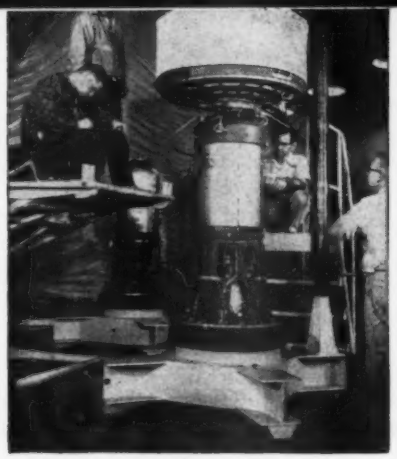
In 1958, prior to the merger, the government alleges that Alcoa sold over $32-million worth of wire and cable products; its total net sales that year exceeded $750-million. In the same year, the government says, Rome Cable sold $40-million worth of wire and cable products and conduit and cable accessories.

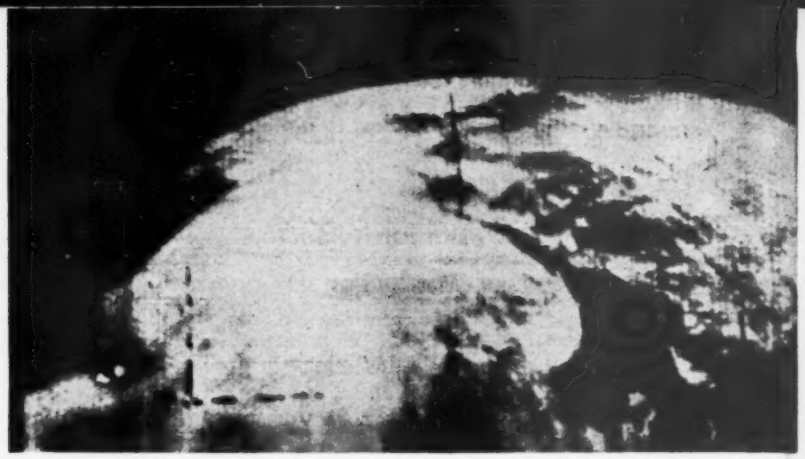
The suit seeks a court order requiring Alcoa to divest all assets acquired from Rome Cable. Antitrust chief Robert A. Bicks calls the Alcoa acquisition part of ". . . the growing trend of large integrated corporations acquiring successful independents."

• **That Gamble-Skogmo, Inc., violated the anti-merger law in acquiring stock control of Western Auto Supply Co., in August, 1958.** The government also charges that Gamble-Skogmo's stock acquisition merely "brings to fruition a long course of conduct designed to eliminate the competition" between the two companies, which also violates the Sherman Act.

According to the suit, Gamble-Skogmo and Western Auto compete in the business of distribution of auto and bicycle supplies, sporting goods, electrical appliances, and other hardgoods. Gamble-Skogmo in 1958 had 370 retail stores and 1,874 franchise dealers in 21 Midwestern states; Western Auto had 376 retail stores and 3,632 dealers in every state except the Dakotas.

In the third case, **Brown Shoe Co. has asked the U. S. Supreme Court to reverse the Justice Dept.'s victory against a merger by it and G. R. Kinney Corp.** The appeal challenges the ruling last November by Judge Randolph H. Weber in St. Louis that Brown, the nation's No. 4 shoe manufacturer, could not acquire Kinney, the No. 1 family shoe chain retailer (BW—Dec.5'59,p84).





TV CAMERAS in Tiros satellite (left) took weather photos such as this one of a cloud mass over Canada and the U. S. Northeast.

A Weather Eye in the Sky

Tiros I is sending the first useful weather pictures back to earth. It may speed the way to military spy satellites.

Weathermen may have mixed feelings about the significance of the latest U. S. satellite firing—they're not sure how it may affect their jobs. But National Aeronautics & Space Administration spokesmen are wholly jubilant about what the successful firing of Tiros I will mean to prospects for future space satellite launchings.

In many respects, firing Tiros I right now was a risky business. Vital equipment expected to be placed on other weather satellites wasn't ready in time for this firing, so Tiros had to go with substitute equipment.

The substitution could have meant trouble. However, researchers were able to readjust things so that the satellite's twin fist-size cameras and other electronic gear are working perfectly.

• **Camera Work**—On command, stored weather photos (above, right) are being transmitted back to earth stations. Instrument readings indicate that, although the temperature inside the 270-lb. "hatbox" is somewhat elevated by the operation of transmitter equipment, the heat isn't seriously hampering the picture-taking.

Missing in Tiros I (so named because of its mission—a Television Infrared Observation Satellite) is its infrared sensor. This is the instrument that, in future Tiros satellites, will be counted on to map relative temperatures of the earth's surface. The device isn't completely tested yet though. So it was left off Tiros I and an extra TV camera was substituted in its place.

• **Circular Orbit**—The orbit into which Tiros I was slipped by its Thor-Able rocket is a spectacular success. It is, spacemen boast, the closest to the "ideal" circle that has been achieved by any satellite. Tiros I's perigee (the point at which it comes closest to the earth's surface) is 378.7 mi.; its apogee (the farthest point from the earth) is 407.2 mi.

For weather satellites, the closer the perigee is to the apogee, the easier it becomes to translate the meaning of weather photos transmitted back to the earth.

• **Influence on Samos**—Tiros is supposed to have no direct connection with Defense Dept. plans to orbit a military reconnaissance satellite called Samos, but the military eye in the sky will be considerably influenced by Tiros' success.

Samos will be called on to give much sharper photographs of military targets than Tiros ever will. Therefore, its camera will have to be different. But one of Tiros' two cameras is a narrow-angle camera believed to have a resolution of 1,000 yards.

A resolution of 1,000 yards isn't good enough to detect Soviet launching pads. It's only good for spotting such features as mountain ranges and big bodies of water. Success of the narrow-angle camera on Tiros indicates, however, that military men shouldn't have much trouble in putting an even finer-detail camera on a Samos satellite.

• **Long Life**—The fact that the infrared horizon seeker on Tiros I is maintaining satellite's orientation as it wheels around the earth is also encouraging news. This orientation will only be maintained now for about three months' time. After that, the satellite's camera eyes will have turned out into space, losing their weather usefulness. But there is every reason to expect that sometime next fall, Tiros I will be operating again. Its orbit, NASA scientists say, will last for decades; its electronic equipment, for years.

Since military men, as well as weathermen, must think of a reconnaissance satellite with long life, Tiros' success is significant.

Nimbus (another NASA weather satellite) will have a much more refined orientation system, with a small jet engine to keep it spinning at a given rate (12 rpm.). Tiros is checking the performance of an early design of such a "spin-up" jet engine attachment. But its test engine isn't big enough or powerful enough to keep two cameras pointing on target indefinitely.

• **Weathermen Obsolete?**—Tiros I has other important commercial implications, according to Brig. Gen. David Sarnoff, chairman of Radio Corp. of America, which designed and built Tiros I under NASA contract. The day is not far off, he claims, when 90-day weather forecasts will become acceptable for business use.

Some weathermen still deny that predicting the weather from a satellite will ever be completely reliable. There are too many local conditions, they argue, that could not be observed from a satellite camera traveling hundreds of miles above the earth's surface.

However, Dr. Harry Wexler, director of research at the Weather Bureau, is exuberant about how the weather satellites can serve the weatherman. Already, in its first few days of taking and sending back pictures, Tiros I has revealed the presence of a phenomenon known as a double vortex in a storm centered in the Atlantic Ocean off New England. Double vortices had never been proved to exist, except in tropical storms, and Tiros' pictures explain several things about last week's weather in the Northeast.

In future pictures, Wexler hopes to discover other things about the weather that will similarly clear up some of the major problems involved in predicting its behavior. **END**



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INTERNATIONAL OUTLOOK

BUSINESS WEEK

APRIL 9, 1960



The West German government moved this week to close the split between Europe's two trade blocs—the European Economic Community (EEC) and the European Free Trade Association (EFTA). Hostility between the two has been near the boiling point, literally threatening a European trade war.

Chancellor Adenauer set up a cabinet committee to study the scheme to accelerate the EEC timetable. This was proposed recently by EEC's executive body, the Commission. The scheme was due to go into effect July 1. But **Adenauer's decision, made under pressure from Economics Minister Erhard, probably means a postponement** or a major modification of the scheme.

The Commission's proposal was meant to solidify the EEC—or Common Market—and end all talks of a Europe-wide free trade area. Instead, it produced EFTA's threats of a trade war. It also led to considerable opposition among businessmen in West Germany and the Benelux countries. And this gave Erhard, an advocate of close ties between EEC and EFTA, his chance to pressure Adenauer.

The Commission's proposal would mean that the EFTA nations and other outsiders would face more discrimination against their goods after July 1 than had been originally planned. At the same time, they would face higher tariffs on many products they sell to West Germany and the Benelux countries. The main offset proposed by the Commission would be an eventual 20% reduction, made on a step-by-step basis, in ECC's common external tariffs.

The EFTA nations—especially Britain, Sweden, Switzerland—have been hopping mad because the U. S. supported the Commission scheme. These nations claim that the U. S. is pushing a pet idea—European integration—at their expense. And the fact is that, under the Commission plan, British exports to West Germany and Benelux undoubtedly would suffer a lot more than would U. S. sales to these nations. That's because duty-free farm products and raw materials make up a large part of our exports to Germany and Benelux.

At midweek, though, the State Dept. seemed in no mood to change its policy. State still thinks that the Commission's proposals make sense on both political and economic grounds.

—•—

U. S. experts on Russia expect Pres. Eisenhower's trip to Moscow in June to be a major historical event. They expect the President will get a tremendous welcome from the Russian people—perhaps a more enthusiastic reception than Premier Khrushchev is bargaining for.

Eisenhower is likely to get a hero's welcome partly because he has never been vilified in the Soviet press. In World War II days, Soviet newspapers presented Eisenhower as an architect of victory. Now he is billed as a man of peace struggling against "imperialist circles" in the U. S.

The President will benefit from some of Khrushchev's own propaganda. The Premier's talk about competition between the Soviet and the U. S. has fanned great interest in all things American—and this will focus on the President during his visit.

The effects of all this will be intangible, but may be very important. If the President's visit does come off successfully, it would be much harder in the future for any Soviet leader to portray the U. S. as a devil. It would

be harder to revive Stalinist policies. The trip might even increase the pressure from the people for more consumer goods and less arms. Such public pressure has only a marginal influence on Russian policy—but it cannot be ignored completely.

—•—

Prospects for East-West agreement on banning military nuclear tests improved again this week. But a lot of hard bargaining lies ahead before a treaty is in the bag.

On the plus side, you have the favorable Soviet reaction to the Eisenhower-Macmillan offer of a short moratorium on small underground nuclear tests (BW—Apr.2'60,p26). In addition, there have been assurances this week from all the probable U. S. Presidential candidates that, if elected, they would continue any moratorium agreed to by Eisenhower.

The test ban negotiations at Geneva now are entering a phase of ticklish maneuvering, with the outcome uncertain. The U. S. and Britain want an immediate agreement in principle on stopping underground tests. Then they want to take up with the Soviets the inspection and control features of a general treaty banning all atomic testing.

The Soviets, by contrast, seem to want immediate agreement on the details of halting underground tests. With that, they might be able to give the world the impression that an agreement banning all tests had been virtually concluded and so score a propaganda victory.

Washington is hopeful that the French will halt nuclear blasts now that they have completed tests of two plutonium bombs. That would remove another potential roadblock to a test ban agreement.

But Paris observers are not so optimistic. These observers believe that Pres. de Gaulle aims to make France at least equal to Britain as a nuclear power—something that would require further tests.

In this light, de Gaulle's state visits to London this week and to Washington later in the month take on tremendous importance. They offer the last chance—before the summit meeting in May—for Macmillan and Eisenhower to talk de Gaulle out of his nuclear ambitions. If they fail to do this, a test ban treaty between the U. S., Britain, and the U.S.S.R. would lose most of its luster. What's more, there would be far less chance that Moscow would be able to pressure Red China into staying out of the nuclear club.

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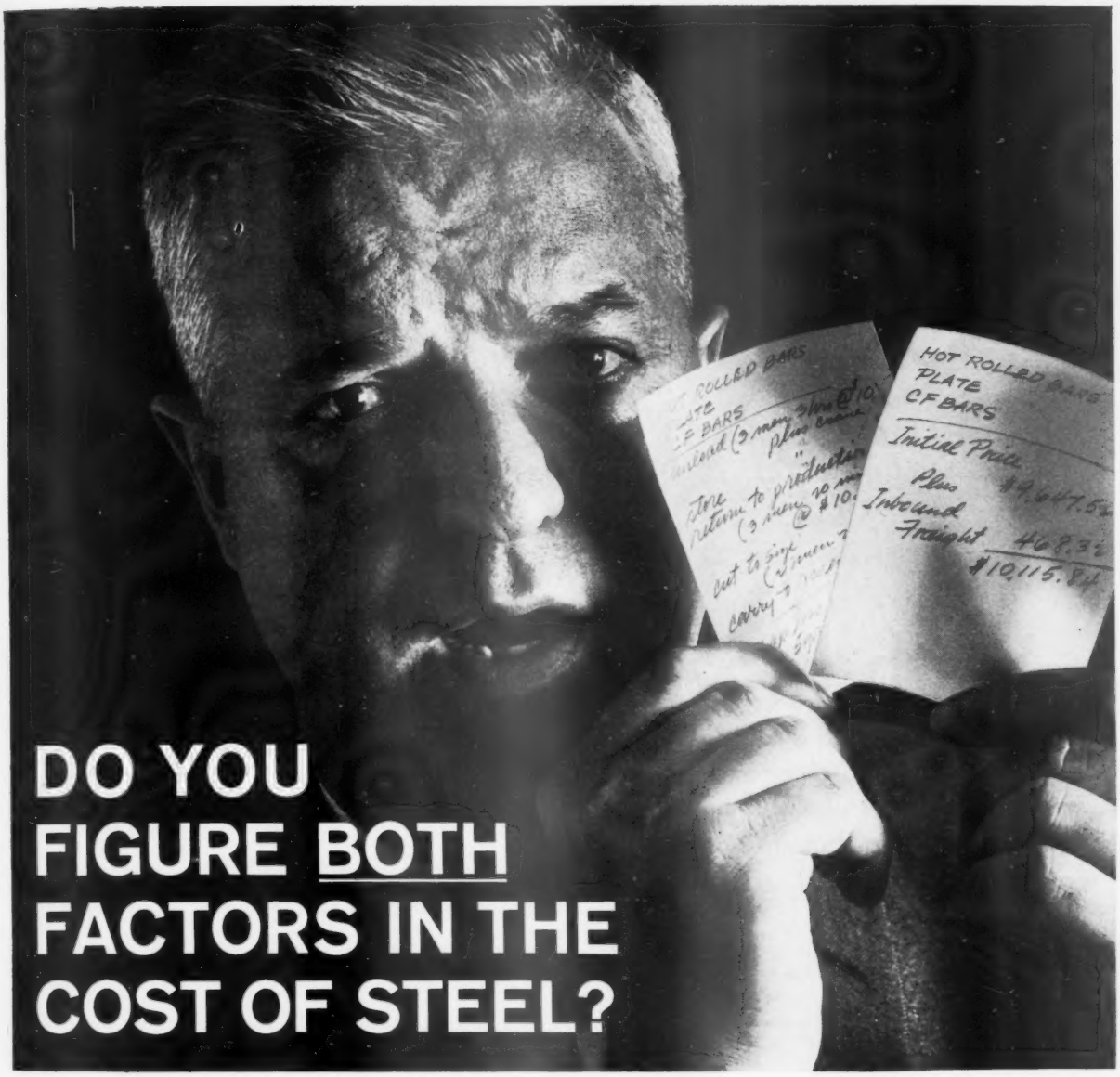
The Macmillan government has slapped a higher profits tax on British business—much to the annoyance of many Tories. In his budget this week Chancellor of the Exchequer Amory raised the total tax on corporation profits from 48¾% to 51¼%. (He also raised the tax on cigarettes.)

The higher profits tax is a sure sign that Amory intends to slow down the business boom in Britain. This move, by itself, won't have much direct effect. But by hitting business first, Amory is in a good political position to curb consumer spending later by tightening up on credit terms. He also has improved the government's chances of holding down union demands for wage increases.

The British economy needs some reining back. Industrial production has expanded at a record rate over the past 10 months. Installment debt has about doubled in the past two years.

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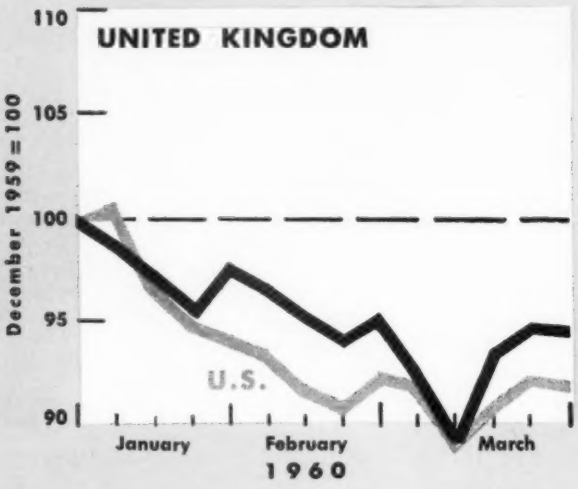
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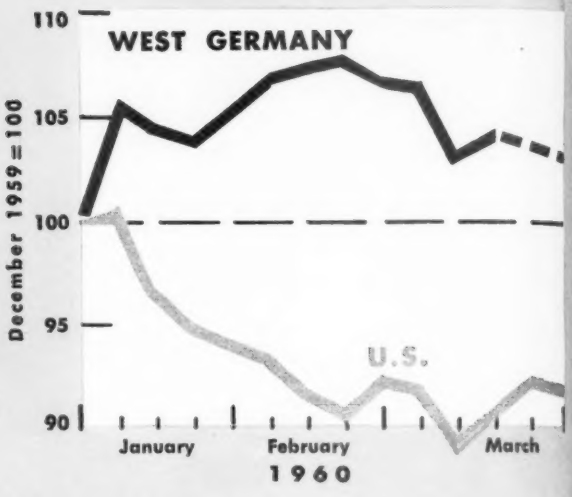


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Data: Standard & Poor's Industrials; Economist Indicator; Madel, Roland & Stone; Oriental Economist, Yamaiichi Securities.

With Broader Investor Interest

Time was when a decline on Wall Street would touch off a decline in all the other exchanges. But that was when investment was almost wholly in the hands of the professionals. Now stock ownership is much broader.

Widespread ownership of common stocks, which once was a peculiarly American phenomenon, began spreading throughout the world during the late 1950s. Taking their cue from Wall Street, investors in almost every country of Western Europe, as well as Japan, have been buying equities—either directly or by purchasing shares in newly founded mutual funds and investment companies. And the worldwide bull-market, though it started well after the rise on Wall Street, has been making up for lost time during the past year.

Then came the decline in the U.S. market, and its influence abroad is clear this week. As the charts show, almost every foreign stock exchange shows a sag in prices. So far, however, there's been no real shakeout, except in South African shares, which have been hard-hit by the race crisis (page 29). In fact, the decline in most foreign markets has been much smaller than the 13% drop in Wall Street. In some places, notably Japan, stocks have even been able to climb to new peaks.

• **Not So Special**—The ability of foreign markets to withstand a sinking spell in Wall Street is a reflection of a big change that is taking place.

Traditionally, a drop in New York or in London was felt around the world. That was because dealing in common stocks was a highly professional affair; the Frenchman or the Belgian who owned shares in his own country usually had funds also in Wall Street or London's City. When these dropped in value, he grew more cautious about his domestic holdings.

Now, a much broader public is interested in buying equities. So there's a large and growing demand for stocks abroad that is at least partially insulated from Wall Street's movements. Professional investors, generally big shareholders, remain sensitive to developments in foreign markets and are still an important factor. But increasing public participation in foreign markets is emerging as a dominant force, one that is much more responsive to purely domestic happenings than to movements abroad.

• **New Trend**—A survey of stock markets this week by BUSINESS WEEK reporters in foreign cities clearly shows this new trend. Despite some decline in stock values and widespread concern about the U.S. situation, brokers on foreign exchanges have no fear that their own bull markets are over. They expect that prices will continue to climb this year, although the pace of the advance may be considerably slower. They say foreign investors remain optimistic about business conditions and profits.

The biggest cloud, of course, is the U.S. picture. If the U.S. should suffer a major recession, foreign stock values would feel the impact. But investors abroad do not expect this to happen.

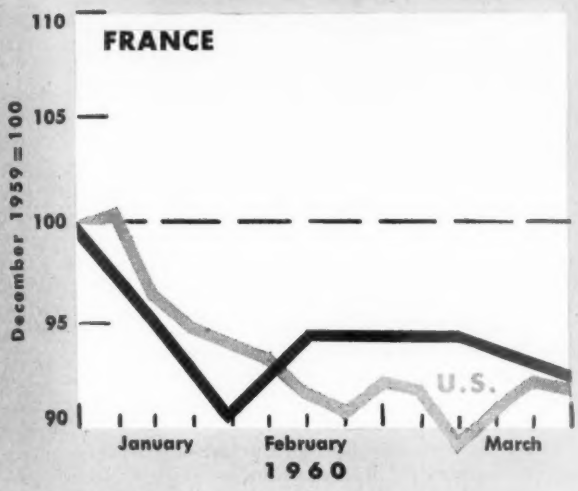
The Americanization of foreign markets, in the sense of broadening public participation, is obvious in almost every country. All of them boast new mutual funds—usually called unit trusts—which are having considerable success in selling their shares to the public. And though no foreign stockbrokers have yet developed the art of selling directly to the public in the manner of a big American brokerage chain, the opening up of what were essentially closed markets represents a sharp break with the past.

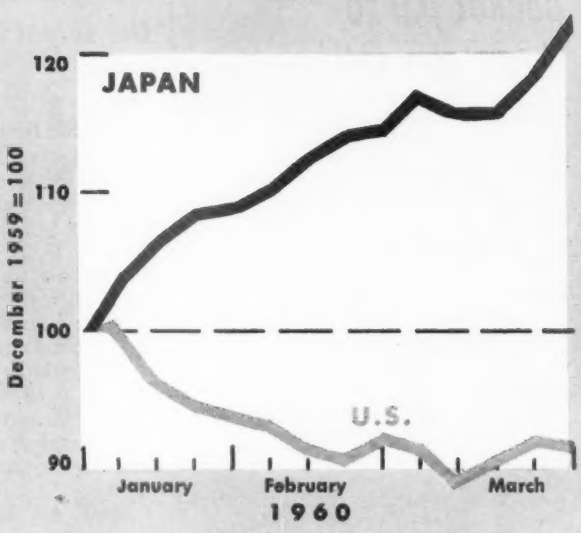
I. In Britain

Of all European equities, British stocks have dropped the most. They plunged about 8% from their highs at the beginning of the year. Some of this drop was a sympathetic response to Wall Street's decline—largely from professional traders—but it was mainly a reaction to the extremely sharp run-up following the Conservatives' election triumph last October.

Official British policy, including a rise in the Bank of England's lending rate and a warning by the Bank's governor that there was "too much money

Wall Street's shakeout





©BUSINESS WEEK

They Easily Rode Out the Storm

chasing too few first-class shares," sobered investors. But it has not soured them. Most British institutional investors, who have been cautious in recent months, continue to feel that equities are sound investments—and they are expected to step up their own purchases.

This week, British stock prices had their biggest single-day rise this year. This came just before the new budget was announced. The mildly deflationary nature of the budget brought some selling, but most London observers think the long-term outlook is bright. If the government decides to tighten credit further, there may be a new decline, but many brokers feel that the City, like Wall Street, will not discount the same news twice.

• **South African Blight**—Much of the trading in South African shares is handled in London, and in this market there is no doubt that values have been hard hit. Gold shares are down more than 10%, and South African industrials have also declined. In fact, London brokers say that foreign holders of South African shares, who controlled an estimated 60% of the total outstanding, have reduced their holdings to 50%.

The decline in South African shares was clearly attributable to domestic events. This appears to be the case also in other countries where the market decline has been steep. By the same token, the foreign markets that have shrugged off the Wall Street drop have done so mainly because conditions at home have been favorable.

II. In France

Take the case of France. Stock prices on the Paris bourse began sliding in January and dropped 8% during the first quarter. Moreover, trading volume is down some 30% from the peaks reached last year. However, French brokers remain optimistic, about both the business outlook and the stock market. In the past week, in fact, prices have firmed and investors are regaining their confidence and interest. They are not wildly bullish as they were last year, but convinced bears are in a very small minority.

• **Local Uneasiness**—Paris' slide was not a sympathetic reaction to the drop on Wall Street. It stemmed from uneasiness in France itself. The financial community was shaken when Antoine Pinay, de Gaulle's conservative finance minister, resigned in protest against the government's expansion program. This led to selling, by both French traders and foreigners.

Then came the Algerian insurrection which, for a time, threatened a civil war. This played far more part in the Paris decline than Wall Street's behavior. The surprising thing is that the French market has not suffered more heavily. As one Parisian broker puts it, "We resisted very well, considering what we have been through."

There is still some uneasiness in Paris but no fear of a collapse. On the contrary, the trend toward equities is actually gaining strength. It will undoubtedly increase as French industrial expansion continues and the Common Market becomes more of a working reality. However, stock prices are unlikely to move upward without interruption; the political situation in Algeria and in France itself is likely to keep investors in a state of confusion. And if stock prices on Wall Street are unable to steady themselves, the French market may be the first to feel the real impact of a new decline.

III. And Other Markets

The German situation is similar. German investors seem to have had a mild case of the Wall Street blues. But they got over it quickly. In fact, at the end of March, the German index was 3% above the yearend level, although it had taken a drop in January.

The consensus is that the bull market in Germany will resume, because business is basically good. Brokers point out that 1959 annual reports now coming out will lend validity to a rosy economic picture, promising higher dividends and profits.

A German broker says, "Only a major catastrophe, such as a 100-point drop in Wall Street, can really hurt us."

Much of the same sentiment is expressed in Amsterdam and Brussels, which have experienced a temporary



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WEST VIRGINIA

. . . the only market that attracts foreign investors on a permanent basis is Wall Street, which . . . is considered the safest long-term bet . . .

(STORY on page 132)

weakness. In Italy, stock prices have declined too, but only in the last month. Brokers discount Wall Street's influence, citing instead the fact that Italy has faced a serious cabinet crisis. Actually, U.S. firms are increasing their investments in Italy, usually in joint ventures with native firms, and this tends to stimulate activity in specific stocks. Production in Italy is rising and so are profits, which is generating a good deal of confidence. Then too, Italian investors are only now becoming equity-minded, and it would take a considerably big change to make them stop buying.

• **Some Are Rising**—A few countries seem completely immune to outside developments. This seems to be the case in Japan where, after a brief decline at the term of the year, the market took off again. According to Tokyo brokers, the decline came about mostly because investors feared that the Bank of Japan might take drastic measures to restrict credit. When this failed to materialize, investors began bidding up stock prices, which reached a new peak this week.

The Japanese are buying food and appliance stocks largely because domestic demand is increasing at an extremely rapid pace. Beer stocks, for example, which have been faring poorly in the U.S., are setting the pace in Japan. And there are buyers for electronics stocks and other companies engaged in exports, which are up 30% over the year-ago levels.

Prices are also rising on the Vienna stock exchange. Most issues have advanced during the first quarter because of booming economic conditions. But the caution felt in other European markets—as well as in Wall Street—has slowed the rise. Most Austrian industrial blue chips showed a decline last week; in contrast, Austrian bank stocks hit new highs.

IV. Canada's Special Case

In still another category is the Canadian market. It enjoyed a huge boom in the mid-1950s, largely because of U.S. interest in mining shares. Since then, however, Canadian stocks have had rough going, despite the fact that the economy is now in the process of recovering.

Basically, the Canadian stock market has suffered from too much bullish fervor. Foreign investors piled into Canadian stocks, sending many issues to extreme levels and then began dumping when projected earnings did not begin to materialize.

• **Deeper Slip**—The Canadian market has not recovered from its shakeout, which was much more severe than anything that Wall Street has faced in recent years. Its general movements have paralleled Wall Street's, but it also shows some individual characteristics that stem from its boom days. It is doubtful that the Canadian market can recover until the U.S. market spurts again, simply because Canadian shares are heavily dependent on foreign buying.

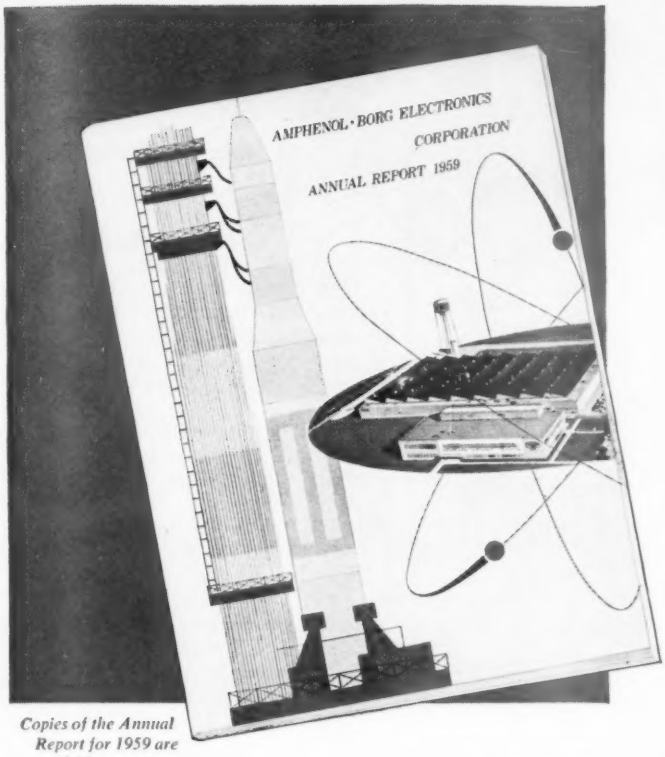
• **Foreign Interest**—There still are many investors who are foreign-minded—willing to put their funds wherever they think they can make money. During the early 1950s, most foreign investors of this type were in U.S. and Canadian issues. Some of these funds have been moved to other markets—to France, Britain, and Germany. But they are not in these markets permanently. In fact, the only market that attracts foreign investors on a permanent basis is Wall Street, which—despite its fluctuations and the rumors about the weakness of the dollar—is considered the safest long-term bet.

This kind of money will move out of European markets if stock prices get too high. And if the U.S. market stands still or moves downward, the chances are that foreign investors will be making some shifts on the ground that the bull market in Wall Street is sure to resume. If these shifts are of a substantial nature, they could affect markets abroad.

• **Home Demand**—However, the buildup of domestic demand in foreign countries is still in its infancy. This demand seems likely to continue to expand throughout this year. For one thing, economic conditions are good, with few signs of the softness appearing in the U.S. For another, there's a real shortage of equity shares, so an increase in demand is sure to mean a bidding-up of prices.

This is precisely what happened in the U.S. during the 1950s. The acceptance of equities by new institutional funds generated a big demand that could not be met without a big upsurge in prices. The chances are that European markets will go through the same pattern before settling down to normal.

In the U.S., supply and demand are much nearer balance than they have been in many years; in Europe and Japan, demand for equities still far exceeds the supply. **END**



Copies of the Annual Report for 1959 are available on request. Write to Public Relations Dept., 2813 South 25th Ave., Broadview, Illinois.

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Amphenol-Borg
ELECTRONICS CORPORATION

Continued Growth in Sales and Earnings in 1959

Sales for 1959 reached an all-time high of $56,451,533, an increase of 22% over 1958 sales of $46,430,851. Earnings increased 28% from $2,279,434 in 1958, to $2,926,605 in 1959, the second largest in the history of the company, exceeded only by 1957. Earnings were $2.50 per share in 1959 compared with $1.96 in 1958, based on total shares outstanding at the end of each year.

The increase in 1959 earnings was due primarily to the greater sales volume. However, earnings would have been greater except for certain nonrecurring expenses and start-up costs connected with moving of administrative offices and certain factory operations to Broadview, Illinois, and the consolidation of several plants into one at Danbury, Connecticut.

Research, Engineering and Development are increasingly important to the company's operations. A greater emphasis has been placed on these activities to assure the continued growth of the company.

Sales and earnings in the first part of 1960 have shown further improvement. Assuming the continuation of the present favorable business conditions, the company in 1960 should experience the best year in its history.

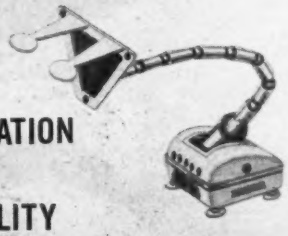
Arthur J. Schmitt
Chairman of the Board

Results in Brief	1959	1958	PER CENT INCREASE
Net Sales	$ 56,451,533	$ 46,430,851	22%
Pre tax Income	5,819,605	4,432,434	31
Net Income	2,926,605	2,279,434	28
Per Share Earnings	2.50	1.96	28
Dividends Declared	1,637,555	1,252,179	31
Shares of Stock Outstanding	1,172,044	1,163,210	1
Number of Stockholders	7,890	7,138	11

Amphenol-Borg ELECTRONICS CORPORATION

GENERAL OFFICES: BROADVIEW (CHICAGO SUBURB), ILLINOIS

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FIRST WITH REALITY
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The new gas-operated, electric-driven truck brings efficiency, economy, safety and power to every job—everywhere! Its gas-driven variable voltage generator powers a direct-drive electric motor. Together, they provide the exact amount of power when needed. Yet you get up to 30% fuel savings!

No clutch, gears, or hydraulic torque converter...longer service life than comparable hydraulic torque converter type trucks. ...Advanced design increases hydraulic pump life over 50%... oversize brakes last up to 30% longer...parts and components easily accessible for service...capacities of 3,000 through 10,000 lbs. (with cushion tires) and 3,000 through 8,000 lbs. (with pneumatics).

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Wall St. Talks . . .

. . . about cut in steel stocks by investment companies, merger talks in food chains, airlines, Heli-Coil stock.

Steel shares are getting rough treatment from some investment companies. Over the past six month, Wellington Fund has sliced its steels from 11% of common stock holdings to 6%; Boston Fund has cut back its steel portfolio to less than 1% from 6%.

Talk of a merger between Grand Union, one of the nation's major food chains, and Daitch Crystal Dairies, a fast-growing New York chain, was spiked this week by a Daitch official. He reported that "there's no substance to such a merger."

Another merger possibility involves Seaboard & Western Airlines and Slick Airways. Talks—but nothing more—have been confirmed. The combination could mean an all-cargo line with routes from the West Coast to Europe. Seaboard operates scheduled cargo service from the East Coast to Europe. Slick has a transcontinental route, but hasn't operated it since February, 1958. It has done charter work, though, and it hopes to get back into the commercial field.

Brokers say **the rise in Heli-Coil Corp.**, up to $41 this week from $32 earlier in the year, has been triggered by buying from one mutual fund.

One offering that turned slightly sour this week was Mid-America Pipeline Co.'s $30-million of debentures and common sold in a unit package. Each unit consisted of a $50 debenture and 3.5 shares of common. Trading started with the debentures priced about $80 bid. At midweek, the price was down to a little over $70, and it was rumored that the underwriting syndicate, headed by Bear, Stearns & Co. and White, Weld & Co., would stop its buying support.

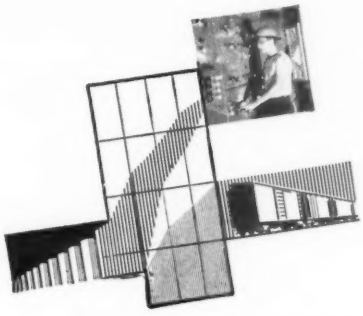
Mutual funds are getting more interested in selling fund shares abroad. Aberdeen Fund, which initiated selling in West Germany a few months ago, now is considering entry into other Common Market countries. And the funds are envious of the success of the Rockefellers' International Basic Economy Corp. in setting up South American funds. IBEC has sponsored funds in Brazil and Colombia, has one ready to go in Argentina, while a Chilean fund is in the planning stage.

Marquette reports for 1959

Highlights of our operations for the year ended December 31, 1959, compared with the previous year, are given on this page from our latest Annual Report.



Copies of our complete Report for 1959 are available upon request. Write to Director of Public Relations.



Highlights from the Report

CEMENT SALES
Up 7.8% over '58 to $55,849,549. Gain came solely from 7.2% more volume.

NET INCOME
Up 8.6% over '58 to $9,490,897. Further improvements in operating efficiency and more volume account for increase.

COMMON SHARE EARNINGS
Up 29¢ a share over '58 to $3.55.

COMMON DIVIDENDS
$1.70 a share in '59—13.3% more than in '58. Current quarterly rate is 45¢, indicating new annual rate of $1.80 —5.9% more than in '59.

DEPLETION ALLOWANCES
Only normal allowances were used. If court approved, higher allowances had been applied, net income would have been $2,424,790 more—92¢ a share more.

TAX REFUND CLAIMS
Progress in collecting claims based on court approved, higher depletion allowances is halted pending Supreme Court action in Cannelton case. Our claims, based on finished product values less packages, aggregate $16,511,994. Sum includes taxes withheld for '57 through '59.

EXCESS CAPACITY
Industry capacity will climb close to 440 million barrels by year end, over 70 million barrels more than needed four years from now.

1960 PROSPECTS
Expected reductions in highway and residential building probably will depress cement use slightly, notwithstanding increases in most other types of construction.

3

One of America's major cement producers

Marquette Cement

MANUFACTURING COMPANY

Executive offices: 20 North Wacker Drive, Chicago 6, Illinois

Operating ten cement producing plants in Illinois, Iowa, Ohio, Missouri, Tennessee, Mississippi, Georgia and Wisconsin.

Annual capacity 16,970,000 Barrels

50 million work garments were given lifetime color with A-M dyes last year



AMERICAN-MARIETTA

Southern Dyestuff Division

Through extensive research, American-Marietta's Southern Dyestuff Division has developed numerous important dyes and dyeing processes. With a keen understanding of both the textile and dyestuff industries, this division has become a leading producer and technical developer of sulfur and vat dyes.

The most popular fabric for work clothes is denim, with more than 200 million yards being produced annually. Denim mills throughout the country are using increasing quantities of Sodyeco Denivat Everblue and Denivat Everblack, patented dyes which offer lifetime color, superior washability and a variety of finishes. American-Marietta's specialized dyes also give enduring color and eye appeal to men's wear, women's and children's clothing, furniture coverings, draperies and other fabrics.

A new laboratory center for research and customer service which is scheduled for completion this year will provide enlarged facilities for Southern Dyestuff's continuous development of new products.

The startling dimensions of America's economic growth and expanding markets have been projected in a special report, "The Years Ahead: 1960 To 1975." The significant conclusions of this professional study have far-reaching implications for every thoughtful executive. You are invited to send for a copy. Address Department YA, American-Marietta Company, Chicago 11, Illinois.

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A-M

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Chicago 11, Illinois

In the Markets

• • •

Stock Prices and Volume Pick Up As Investors Start Buying Again

News that auto sales had picked up in the last days of March—and rumors that the Federal Reserve would cut margin requirements—was enough to stimulate buying of common stocks. Volume picked up smartly and prices of many issues, including the depressed autos and steels, moved up for the first time in months.

Investors apparently are still equity-minded, particularly since prices of bonds already have increased so markedly, and they are receptive to any signs that the slackness in business during the first quarter was only a temporary lull.

The rise may continue, but it is more likely to turn out to be simply a false start. It is unlikely that investors will regain all of their old optimism. But **if business is able to spurt up this spring, and profits rise, then there is little danger of a further collapse.** In stock prices on the other hand, a continuation of the kind of crosscurrents that dulled business in the first quarter, or a worsening of conditions, could cause a new loss of confidence.

According to market technicians, the brightest sign was the pickup in volume. Investors have been staying on the sidelines, so that most of the market's activity has been confined to speculative traders who have moved in and out of a few favored stocks. The return of investors to the market this week focused attention on other stocks.

• • •

Record Flow of Registration Statements For Stock Offerings Piles Up at SEC

A log-jam of securities offerings is building up at the Securities & Exchange Commission. Chmn. Edward N. Gadsby announced this week that 253 registration statements were filed during March for $2.5-billion of public issues—a record volume.

Gadsby said, moreover, that at the end of March, 414 pending registrations had piled up at SEC offices—also an all-time high. **The record totals are attributed chiefly to the flow of equity issues to market,** particularly from new and smaller companies whose financial background usually takes more time to examine.

• • •

California Revises Bond Selling Policy In Hopes of Lowering Borrowing Costs

California, the nation's largest issuer of municipal bonds, is switching its bond selling policy in an effort to reduce its borrowing costs. Bert A. Betts, state treasurer, said the state will market its bonds in smaller amounts than in the past and will go to market when conditions seem right, not every three months as it has been doing.

By issuing the bonds in smaller amounts, the state seeks to attract more bidders. In the past, some of its offerings have received only a few bids, forcing the state to pay what it considered too high an interest rate. **And by doling out their bonds, rather than sticking to a rigid schedule, state financial officials feel they will be in a position to stay out of overcrowded markets.**

The bond fraternity has mixed feelings about the new policy. Some dealers feel that California has at times paid too much interest on its bonds. But a good many underwriters say that the flexible schedule means underwriters will have to be more cautious in picking new issues, to avoid guessing wrong on the market. They add that savings may not be so great as the state envisions, since it has to sell so many bonds each year—about $300-million to $400-million.

The first test of the new policy will come Apr. 19, when California will sell $25-million in school aid bonds.

• • •

Channing Buys Majority Interest In Tower Insurance Group

Channing Corp., the big mutual fund outfit that won Managed Funds' investment advisory contract in a proxy fight (BW—Mar.26'60,p49), extended its activities this week. It announced purchase of a majority stock interest for $10.4-million in the Tower Insurance Group of Battle Creek, Mich. The Tower group operates Federal Life & Casualty Co. (with $500-million of life insurance in force), Wolverine Insurance Co., Riverside Insurance Co. of America, and Secured Insurance Co.

The acquisition serves two purposes for Channing. First, it bolsters its claim as a financial department store. Channing subsidiaries serve as distributors and investment managers of seven mutual funds, and one of its subsidiaries is an over-the-counter brokerage house.

Second, Channing wants the profits from insurance sold to contractual plan buyers—which up to now has been written by other life insurance companies; if the buyer dies, the insurance pays off the unpaid balance.

• • •

The Markets Briefs

Shareholders of **Lone Star Steel Co.** will have to settle for a 10% stock dividend instead of a cash payment, because the U.S. government thinks the company isn't able to pay cash. The Dallas company felt it was in a position to pay cash, but it had to ask the Treasury for permission—since Lone Star currently owes the Treasury $37-million, the balance of an old RFC loan. The Treasury said no.

Futures, Inc., a small mutual fund that invests solely in commodities contracts, has given up as an open-end fund—one that sells new shares on a continual basis. The 12-year-old fund has not been able to attract shareholders in any large numbers—it has less than 750. So it will operate as a closed-end fund from now on, with a set number of outstanding shares. But fund officials say they will redeem shares at net asset value.



ZETLAND ARMS, owned by brewer Watney, operated by Winifred Sexton (behind bar), finds business "jolly good."

Pub Crowd Loses Thirst for Ale



WATNEY AGENT checks regularly to be sure Miss Sexton is pushing his company's brews. Brewers own about 85% of British pubs, use them as major outlet for their brands.

British brewers are fermenting new ideas to lure back their best customers. TV, soft drinks keep people home.

To any beer-loving Briton, his favorite pub—the White Swan or Red Lion or Zetland Arms (pictures)—is a private castle. There, in cozy, congenial surroundings, he sips his pint of ale with more relish than Madison Avenue gulps its Martinis.

To Britain's profit-loving breweries, however, the so-called public houses are something quite different. They are the major retail outlet for myriad brands of ales and beer. From Perth in Scotland to Portsmouth on the south coast, there are about 81,000 pubs, and breweries own about 85% of them.

Though still clubby and tradition-bound, the brewery industry (835 companies) is fermenting with much-needed new ideas these days. For beer drinking has been falling off in Britain.

Large breweries—from Watney Mann





The English pub is the haunt of high society . . .



. . . a social club for the low-income group . . .



. . . and a rendezvous for the middle class.



PUBLICAN Sexton empties cash register after closing. Zetland Arms makes an annual gross profit of $14,000.

FOR YOUR
NEW BUILDING
Fleetlite
AMERICA'S finest WINDOW



Fleetlite
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BRAND A RUST MAGIC

RUST MAGIC SUPERIORITY

Metal panels subjected to extreme salt spray for 500 hours. Brand A shows severe blistering, underfilm corrosion, widespread lifting and creeping. Rust Magic panel film shows no defect or corrosion except where scribed through to bare metal.

KRYLON **KRYLON, INC.** NORRISTOWN, PA.

Since 1948 KRYLON has sold more aerosol paints than all other aerosol brands combined

. . . the landed and knighted aristocracy whose breweries have been passed from one generation to another . . .

(STORY on page 140)

to Scottish Brewers—are swallowing smaller fry through mergers. Last month, for instance, Watney extended its national distribution by linking with Phipps Northampton, a well-known regional brewer.

At the same time, big brewers are chopping away their deadwood properties—the pubs with small sales or with locations that could be better used for shops and offices. A few weeks ago, Ind Coope sold six pubs in the London area for $1.4-million. One buyer was Debenhaus, Britain's No. 2 department store chain, which paid $730,000 for the Marquis of Granby pub in suburban Harrow.

The entrance of outsiders into the game of merging companies and converting properties is stirring some excitement, too. Canadian tycoon E. P. Taylor, head of Canadian Breweries, is just now bringing two Yorkshire brewers and another in Edinburgh into one group. Beyond that, there is a suspicion that some U. S. breweries are eying the British market.

• **Alert**—One development that helped spur recent changes in the industry was the attempt by Charles Clore last year to take over Watney Mann (whose 1959 profits, before taxes, amounted to nearly $10-million). A fast-stepping property developer, Clore saw wide-open opportunities for building offices and shops on or adjacent to the 3,600 pubs that Watney owns.

Industry leaders—the landed and knighted aristocracy whose breweries have been handed down from one generation to another—soon closed ranks against the "outsider." But Clore sharpened the industry's awareness of its postwar troubles.

• **Sales Story**—Today, industry sales still are enormous—more than $1.6-billion annually, of which nearly half goes to taxes. Britain, in fact, ranks only behind the United States and West Germany in the consumption of beer.

Yet, over the past 50 years, there's been a 30% drop in beer drinking. By 1939, consumption was down to 25-million bbl. last year, sales were barely above the 1939 level.

True, consumption last year showed signs of spurting upwards. But that was due to what Britons, accustomed to rain and chilly fogs, called a "heat wave" and to the two-penny reduction in beer taxes. A Labor minister remarked in the early postwar days: "It

New techniques for raising cash help businessmen to solve problems

CASE HISTORY #858

"Family Company" Provides Family Protection

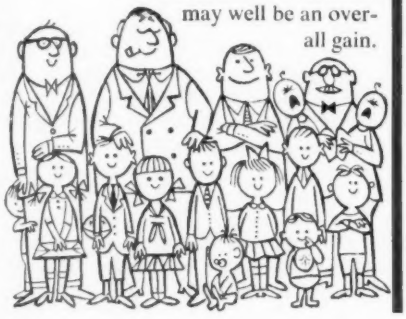
Four stockholder-employees wanted extra protection for their families. How could their company provide it?

In an actual case*, these four businessmen, who were brothers, solved this problem with an Equitable Employee Death Benefit Plan.

First, the corporation agreed to pay $5,000 a year for five years to the widow of any brother who died while employed. To make this possible, the corporation purchased a $25,000 Equitable policy on the life of each of the four men.

The widow would receive a substantial death benefit income with $5,000 excluded for income tax purposes, the balance being reportable.

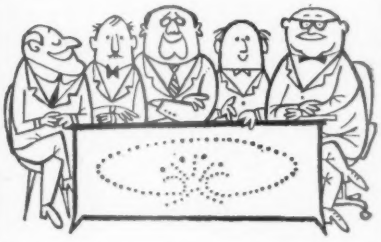
Any insurance death benefits that the corporation receives are income-tax free. And payments to a widow are deductible. The net result may well be an overall gain.



CASE HISTORY #1258

Owners Preserve Ownership

These businessmen figured out a way to keep control of their company—and to get more family protection, too.



In an actual case*, the five stockholders of a small manufacturing company solved the problem with a Personal Insurance Rider to corporate-owned insurance.

The corporation purchased a $75,000 Equitable policy on the life of each of the five stockholders. If one of them died, the company would be able to buy his stock—even though the company's capital were tied up in equipment and inventory—and the survivors would retain ownership of the corporation.

At the same time, each stockholder-employee wanted more individual protection for his family. This was provided through a Personal Insurance Rider to the corporate-owned insurance. *And the corporation pays the rider premiums as additional compensation.*

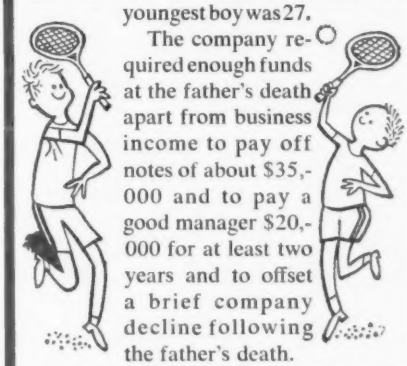
CASE HISTORY #158

Teen-agers Get Corporation!

Father wanted the family corporation to be in good shape when his teen-age sons were ready to take over.



In an actual case*, the problem was solved by a trust plan and Key-Man Insurance. The father was 51. His sons were 15 and 12. If he were to die before they were ready to take over, the stability of the company could, possibly, be impaired. The father decided to set up a trust by his will to run the business until the youngest boy was 27.



The company required enough funds at the father's death apart from business income to pay off notes of about $35,000 and to pay a good manager $20,000 for at least two years and to offset a brief company decline following the father's death.

A $100,000 policy from Equitable fulfilled the above requirements, improved the company's credit position, and provided a growing reserve.

**All identifying data have been changed*

Equitable Living Insurance for business purposes can be used in a thousand ways. Perhaps it can solve some of your business problems. Your attorney, of course, will provide you with legal advice and will prepare your business agreements for you. But when you enter a business agreement—where the right amount of money must be available at the time you need it—call The Man from Equitable!

THE Equitable

LIFE ASSURANCE SOCIETY OF THE UNITED STATES

Home Office: 393 Seventh Avenue, New York 1, New York ©1960

BW-4

CASE HISTORIES
The EQUITABLE Life Assurance Society of the United States
393 Seventh Avenue, New York 1, New York

I have checked one or more case histories below. Please send me free details.

- ☐ #858—*"Family Company" Provides Family Protection*
- ☐ #1258—*Owners Preserve Ownership*
- ☐ #158—*Teen-agers Get Corporation*

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ADDRESS_____

CITY_____ ZONE_____

COUNTY_____ STATE_____

See David Wayne, Judith Anderson, Eddie Hodges, and Neva Patterson in "Millionaire's Mite" on OUR AMERICAN HERITAGE, Sunday, April 10, NBC-TV

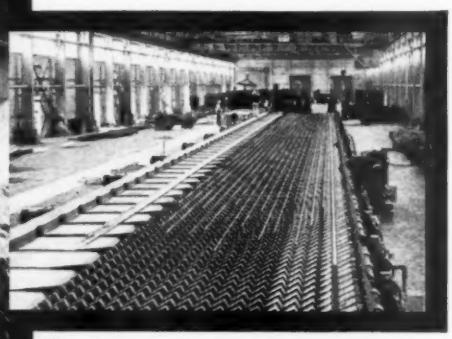
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Products of Steel for Building

Ceco, with its new steel mill, meets the dynamic growth of American industry as an integrated company dedicated to serve you better. Accountability for all processes from raw material to erection of finished building components is behind our promise of quality. You can depend on Ceco since product control is never out of our hands. Call on Ceco for the best in metal building components. Ceco Steel Products Corporation. Sales offices, warehouses and fabricating plants in principal cities. General offices: 5601 West 26th Street, Chicago 50, Illinois.



Ceco responsibility starts with the manufacture of steel in new electric arc furnaces.



New automated bar rolling mill holds finished steel to exact specifications. Pictured is the cooling bed for bar products.

Ceco's control of service to its customers begins at the mill, continues through engineering and fabrication, and ends on job sites located from coast to coast.





Ceco holds itself answerable for everything from manufacturing to erection. Prescribed standards of engineering must be met.

CECO STEEL

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TOTAL MANUFACTURING FOR THE BUILDING INDUSTRY FROM RAW TO FINISHED PRODUCTS

. . . the system is as sacred to the industry as is its traditional secrecy about sales . . .

(STORY on page 140)

is no longer fashionable to be drunk."

• **Lag in Lager**—Several factors contribute to the long-term dropoff in drinking. According to one pub manager, the British workingman used to drink to forget his hardships. Today, the laborer boasts a much better living standard. TV often lures him from pub to home. Not accustomed to lugging bottled and canned beer homeward, he sits with his family and watches the "telly"—often without the glass of beer to go with it. (Groceries don't sell beer in Britain, but "off-license" liquor stores do.)

Another factor appears to be the growing popularity of soft drinks, whose sales have doubled during the past decade. In the early 1950s, Coca-Cola and Pepsi-Cola were drawn into the market. Last month, Unilever got into the act with a new fruit drink called Spree.

Breweries are meeting this situation by trying for soft drink bottling franchises. Watney Mann is Coca-Cola's bottler for southern Britain. And most large breweries recently have expanded their prewar "mineral water" departments to produce soft drinks for their own pubs.

• **Cost-Cutters**—To cut costs and help keep profits high, the beer industry has started putting regional brewers on a national basis. It also is putting more emphasis on bottled and—recently—on canned beer to allow broader distribution (draught beer can't be shipped easily and cheaply over long distances). Where only 5% of beer was packaged 50 years ago, today the figure is around 40%; that's far below the U.S. figure of around 80% for bottled and canned beer—but it's climbing steadily year by year.

• **Pyramid Structure**—Along with this, breweries are merging at a fast clip. Since January, 1959, there have been approximately 20 of these large-scale tie-ups.

Friary Meux—formed earlier from a merger between Friary, Holroyd & Healey's Breweries and Meux's Brewery—took over George Peters & Co. Dublin-controlled Guinness, which has had a London headquarters since 1936, took control of Cairnes Ltd. Last February, Courage & Barclay (a linkup of two breweries) merged with H & G Simonds.

Mergers are by no means a recent phenomenon in the industry. In 1930, around 1,400 breweries dotted Britain.

More than 800—bought up or gone bankrupt—disappeared from the industry's roster between 1930 and 1950. Many of these were tiny—and ripe for becoming subsidiaries of bigger breweries. The difference today is that mergers are between breweries already powerful in their regions.

What's emerging is an industry with a pyramid structure—a few companies at the top, a mass of subsidiaries below. Ind Coope, for example, has 25 subsidiaries and three associated companies under its wing. Vaux & Associated Breweries (with seven subsidiaries) last July took over Ushers Wiltshire Brewery (three subsidiaries), which in turn merged with Arnold & Hancock a month later.

• **"Tied" System**—For brewers, the "tied" system of pubs by which the industry controls its retail outlets is a bitter point of debate. From Ind Coope with its 5,300 pubs to Whitbread with its 1,300, the system is as sacred to the industry as is its traditional secrecy about sales.

Here's how it works: The brewer builds or buys a pub. He either rents it to a man or a couple, or installs a paid manager. In return, the pub becomes a near-monopoly outlet for the brewer's brands—from bitter to ale to ager.

A maverick in the brewery club is Guinness (run by the Earl of Iveagh), which has never had "tied" houses. Other brewers argue that Guinness can get away with it only because the company has just one winning product, its famed stout, and because customers demand it at other brewers' outlets. Critics of the "tied" system suggested that other brewers also should concentrate on one or two brands that the public will demand.

In any case, Guinness' success has set the stage for changes in pub sales. With bottled beer easily shipped, customers in even back-country villages are demanding variety—not just what the local brewer pushes in its "tied" pubs. That's one pressure behind the merger wave. Through linkups, one brewer sells his brands in another's pubs. Often, the linkups are simply "trading arrangements."

• **Partners**—Meanwhile, at least one pub—the Zetland Arms—is carrying profitably. Publican Winifred M. Sexton likes her tie-up with Watney's, despite the occasional visit of a Watney's "inspector" to make sure she isn't pushing somebody else's brand too hard.

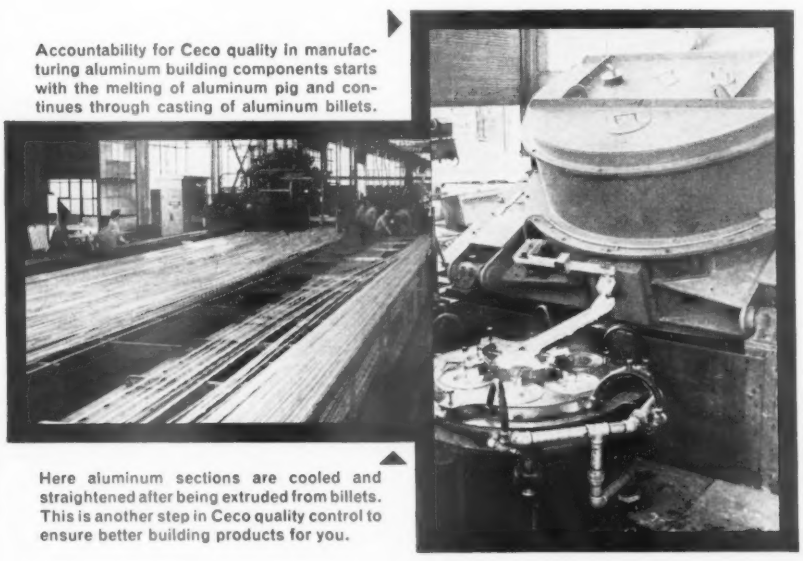
After Watney's shared with her a $19,600 "modernization" tab in 1958, business at the Zetland Arms runs now about $4,200 in weekly sales—which means an annual gross profit of $14,000.

"And that's jolly good," says "Winnie." END

NEVER OUT OF OUR HANDS

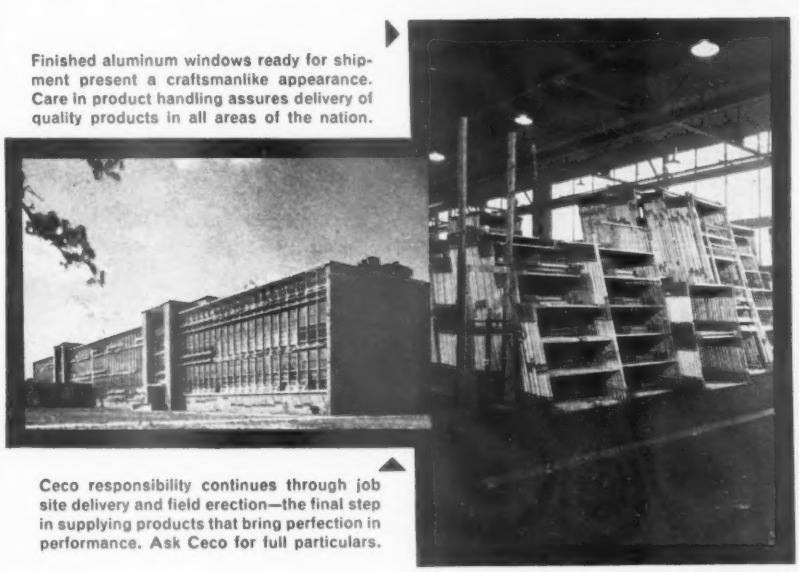
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Only when every step of product manufacture is under one control can there be POSITIVE assurance of quality. Ceco makes that promise—since control of aluminum products is never out of our hands. Ceco's facilities for casting aluminum, fabricating it into finished products and erecting them on the project add up to an integrated company, assuring you a source of dependability. Ceco Steel Products Corporation. Sales offices, warehouses and fabricating plants in principal cities. General offices: 5601 West 26th Street, Chicago 50, Illinois.



Accountability for Ceco quality in manufacturing aluminum building components starts with the melting of aluminum pig and continues through casting of aluminum billets.

Here aluminum sections are cooled and straightened after being extruded from billets. This is another step in Ceco quality control to ensure better building products for you.



Finished aluminum windows ready for shipment present a craftsmanlike appearance. Care in product handling assures delivery of quality products in all areas of the nation.

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TOTAL MANUFACTURING FOR THE BUILDING INDUSTRY FROM RAW TO FINISHED PRODUCTS

In Business Abroad

• • •

Britain and Russia Set Up Exchange Of Trade Shows in Summer of 1961

British and Russians have agreed to reciprocity in trade shows in 1961. Details are set for a British trade fair in Moscow between May 19 and June 4, 1961, followed in July by a Russian trade show in London.

In Moscow, the Russians have agreed to build a new 130,000-sq. ft. pavilion for the British, supplementing the two pavilions built for last year's U.S. exhibition. The British show, **which shapes up as the largest of its kind ever held in the Soviet capital,** is intended primarily to boost sales of British machinery to Russia. About 400 exhibitors have already booked 90% of the available space.

United Kingdom trade with Russia is off to a brisk start this year. In January-February, it ran about $24-million worth, compared with about $13-million in the same months last year. Imports from Russia came to $25-million worth, compared with $19-million in 1959.

• • •

Bonn May Help Finance Industry In Series of Small Atomic Reactors

With two more ambitious nuclear reactor programs bogged down in preliminary studies, with no financing in sight, West German government and industry are quietly nearing agreement on five or six small reactors for underdeveloped areas of the world. These reactors could serve both as pilot studies and as showcases for West German makers.

The Bonn government has shown no enthusiasm for helping to finance 500,000-kw. or 150,000-kw. reactors, and preliminary design studies won't be completed for another year or two. But the government may help build one 50,000-kw. multipurpose pressurized-water reactor and four or five 20,000-kw. boiling-water reactors.

There are no buyers in sight for any of these reactors, but German industry is hopeful that their relatively low cost will attract interest that couldn't have been expected for the larger reactors.

• • •

Ford Motor of Canada Seeks O.K. For Tractor Plant in India

The Ford Motor Co. of Canada proposes to build a $10-million plant in India for the manufacture of Fordson tractors. The Indian government is studying the plan.

Ford would put up all the money for the plant. Indian participation is not planned, but it is understood Ford might consider undertaking the project in partnership with an Indian company. **The plant would turn out 20-hp. and 45-hp. tractors worth about $2-million a year.**

Ford also has indicated it would like to build a truck plant in India, but no definite plans have been drawn up. This probably won't be done until some decision has been made on the tractor plant.

Indian approval of the tractor plan submitted by Ford of Canada, a subsidiary of Ford Motor Co. of the U.S., would mean a big breakthrough for American tractor manufacturers in India. India's Defense Ministry recently entered into agreements with Japanese companies for the manufacture of 1-ton trucks and tractors at Indian ordnance factories, rejecting offers submitted by U.S. tractor manufacturers.

• • •

Germans Do Less Buying on the Cuff, Increase Their Bank Savings

West Germans enjoyed fatter pocketbooks last year, and as a result relied less on credit for their purchases and also increased their savings. This contrasts with the trend in other countries, where retail charge accounts and installment buying have increased in proportion to income.

The German Institute for Economic Research of Berlin reports that in 1959 only 12.5% of total retail buying by Germans was on credit in any form. In 1958 the figure was 13.2% and in 1957 it was 14.4%. Total credit in retail trade, including charge accounts, amounted to 5-billion Deutschemarks.

Savings in 1959 showed an increase of 7.5-billion Deutschemarks. Bank-financed consumer credit rose to 3.6-billion Deutschemarks in 1959, a 23% gain over 1957; while other short and medium-term credit jumped to 43.2-billion Deutschemarks, 95% above 1957.

• • •

Moscow-New York Flights on U.S. Plans Promise More Prestige Than Revenue

The U.S. and Russia have moved a step closer to a commercial air agreement on direct flights between New York and Moscow.

After "studying" a U.S. proposal since October, 1958, the Soviets say they are ready to talk business. It's expected that the State Dept. will suggest talks in June or July.

Pan American World Airways already has permission from the U.S. to fly a Moscow-New York route but not from Russia. Trans World Airlines, though interested in the route, has not applied for permission from the Civil Aeronautics Board.

For U.S. airlines, the route probably is more attractive for prestige reasons than for potential revenue. The market is considered pretty "thin." Also, Russia's state-owned Aeroflot—probably flying a TU-114 turboprop—would draw quite a bit of the traffic. One estimate puts average payload of a weekly Boeing 707 or Douglas DC-8 jet flight from Moscow to New York (or vice versa) at only 10% to 15%—far below the break even point.

At the moment, travelers flying from New York to Moscow make connections with European airlines.



On a foundation of concrete . . .

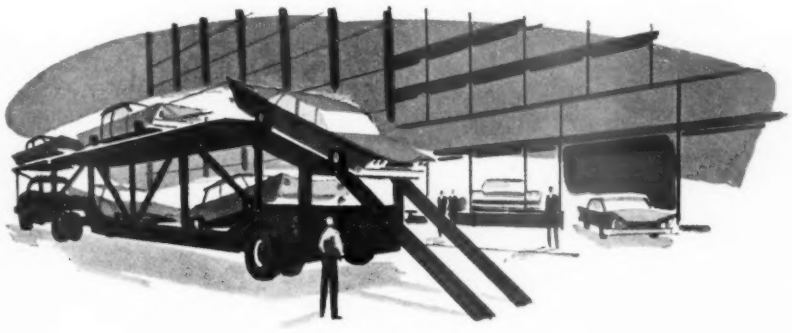
Giant presses, exerting pressures of thousands of tons, stamp parts from heavy steel to increase the production and lower the cost of automobiles, washing machines—so many essentials of modern life.

But these big, modern presses could never operate efficiently were they not mounted on solid, safe, massive beds of concrete.

Here is another example of how the existence of concrete helps make modern living possible. It is difficult to think of any activity to which concrete does not make a substantial contribution . . . in your home, your office, your factory, your farm.

Lehigh Portland Cement Company is one of the nation's largest producers of cement – the basic ingredient of concrete. Daily it is contributing, in many inconspicuous ways, to your safety, health and better living.

Lehigh Portland Cement Company, Allentown, Pa.



LEHIGH CEMENTS

The plants of the Lehigh Portland Cement Company, located in eleven states, produce cements for uses as diverse as foundations and firewalls, sidewalks and sewers.



"Low cost BLISTER PACKS give us an edge in sales"

says W. George Gress, Director of Purchasing, Gillette Safety Razor Co., Boston, Mass.

"With Celanese Acetate sheeting," says Mr. W. George Gress, "we get an economical packaging material and an economical way of using it. As for package quality—it's excellent! That includes a beautiful view of the product and plenty of protection."

It's so easy to mass-produce an attractive package like the Gillette hanger card. With Celanese Acetate sheeting formed into blister packs, you can make your packaging part of the assembly line. Some packaging operations are running at rates of 1000 blister packs per minute or more!

Acetate sheeting gives you a sparkling-clear, semi-rigid enclosure that resists aging, keeps your product factory fresh, and protects it from damage. It's a natural sales booster . . . a temptation to the impulse buyer.

Find out how thermoformed Celanese Acetate sheeting can help you add sell to your product at a cost you can't afford to overlook. Write to: Celanese Plastics Company, a Division of Celanese Corporation of America, Dept. 128-D, 744 Broad St., Newark 2, N. J.

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PERSONAL BUSINESS

BUSINESS WEEK
APRIL 9, 1960



If you were turned down for **life insurance** a few years back as either a "health" or "occupational" risk, you might be surprised at what your agent can offer today. If you're willing to pay, that is.

Since about 1950, and especially in the past two or three years, **a great deal more extra-risk life coverage has been made available** to people with dire medical histories or hazardous hobbies or occupations.

The only hitch: **extra premiums,** sometimes just a dollar or two, but often high—**up to $15, $20, or $25 a thousand a year.**

On the occupational side, obviously there are myriad risk situations. Each is judged on its own facts, and you, the policy buyer, are billed accordingly. Here are some typical cases where coverage is more liberal today:

• **You fly a private plane.** If you fly a limited number of hours, you can now get coverage with no extra premium. Over the limit—usually 110 hours a year—you'll pay $2.50 to $5 a thousand extra. You'll pay this, too, if you're under age 27, regardless of flying hours.

• **You work at a high-risk job.** Say your office adjoins a chemical plant that gives off fumes that come your way under smog conditions, or maybe you're an architect or engineer who has to inspect work high in unfinished structures—you can get covered today, for about $2 to $10 a thousand in added premiums. Figure $10 as meaning quite an unusual risk. **(Contrary to rumor, the desk-bound man isn't necessarily out of the high-risk class.)**

• **You travel off the beaten path.** Say you visit your company's outposts in tropical countries two or three times a year, or you and your wife actually go on some of those safaris that other people read about—you can get life insurance today, even if you're a heavy-gun, big-game man. Extra cost: $2 to $10 usually.

Note that if you can show the insurance company that your high-risk days are over, it will lower your premium to standard rate. But—and here is something that, oddly enough, has tripped many people—you have to take the initiative. The insurance company won't check, or act, on its own.

Warning: **There is one kind of hazard that may cut you out entirely—a history of automobile accidents** (and the insurance company's personal "credit investigation" will turn up this information in nearly all cases). In this one area, at least, the rules are getting tougher, not easier.

On the health side, it seems that the companies are getting more liberal day by day. True, extra costs get steep but, again, it's a question of individual underwriting. Here's a capsule rundown on what you'll find:

• **You've had a heart attack.** Coverage is now probable, given a substantial "recovery period" with no recurrence. With only 1 to 3 years of nonrecurrence, the extra premium is high, maybe $25 a thousand. But with 7 to 10 years, the extra rate goes down to around $10, and for more than 10 years, it's down near $5.

• **You have high blood pressure.** Only sky-high readings will cut you off entirely, despite a recent scare about the ill effects of even slight pressure elevations (BW—Oct.24'59,p153). However, the insurance doctors today are looking close at anything over 140/90 (generally not too bad, really), and extra premiums range high, $20 or $25 or even more for a man age 50, if he's in "fair" shape. **High blood pressure plus obesity,** incidentally, pushes costs to the breaking-point—unless you're desperate for coverage. **You pay about double the extra premium charged for high blood pressure alone.**

• **You've had cancer.** With a recovery time under five years, you'll find it virtually impossible to buy life coverage. But with 5 to 10 troublefree years, today you can obtain a policy for roughly $10 to $25 a thousand in added premiums. And if you can show more than 10 years, you might find close to standard cost. A great deal depends on the type of cancer you had.

• **You have diabetes.** Until recently, this ruled you out. Today, assuming the disease is under control, you can get covered for around $3 to $8 in added premium, with highly complicated cases going to about $15.

• **You've been felled by simple ulcers.** Within 2 or 3 years of your attack, you'll pay roughly $5 to $10 extra; after that, you should get the standard rate without too much trouble.

A final reminder: The "insurable risk," like anyone else, usually can buy double indemnity coverage, which means that accidental death pays off double. Extra rate is $1 to $2, depending on age (BW—Mar.5'60,p134).

—•—

Your club's golf course will probably have a new look this spring. The reason? Increasing popularity of golf cars. Many clubs are building parking areas near greens and tees and, in some cases, asphalt and gravel paths along fairways. Bridges are being widened and strengthened.

Today there are about 72,000 golf cars in use. Before the end of the year, another 10,000 will be on the links, with practically every top course making them available. **Many clubs buy a fleet for rental to members.** Note: In a number of big clubs, private ownership of golf cars is being discouraged for two reasons—they take up needed storage room when not in use, and tend to set up status symbol "barriers."

Among the burgeoning variety of makes and styles, you'll be seeing new gasoline-powered cars and electric vehicles with push-button controls. And there will be new accessories: radios, cigarette lighters, windshields, and warning devices ("Bermudas") that sound like doorbell chimes.

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Guns: C. H. Lawrence, managing director of James Purdey & Sons, Ltd., London, one of the world's expert custom gun makers, is now in this country. His schedule for personal measurings and fittings for shotguns and rifles follows: Ambassador Hotel, Los Angeles, Apr. 10-16; Hilton Statler, Dallas, Apr. 17-27; Mayfair House, New York, Apr. 27-May 7. Costs range $400 to $2,500 (BW—Mar.23'57,p162).

Speaking of firearms, a semi-automatic shotgun, described as **the first firearm to use a glass fiber barrel** (able to withstand greater pressure than steel) has been introduced by Winchester-Western. Made with an aluminum receiver and trigger guard, it weighs only 6½ lbs. ($149.95).

—•—

IRS will contest a Tax Court decision that the cost of food and lodging during a Florida trip—prescribed by a physician as a warm-weather cure—is a tax-deductible medical expense (BW—Dec.12'59,p138). But transportation cost isn't being questioned.

—•—

For baseball fans, the inside story of the game's growth from Valley Forge days to formation of the major leagues in 1903, is told in **Baseball—The Early Years,** by Harold Seymour (Oxford, $7.50).

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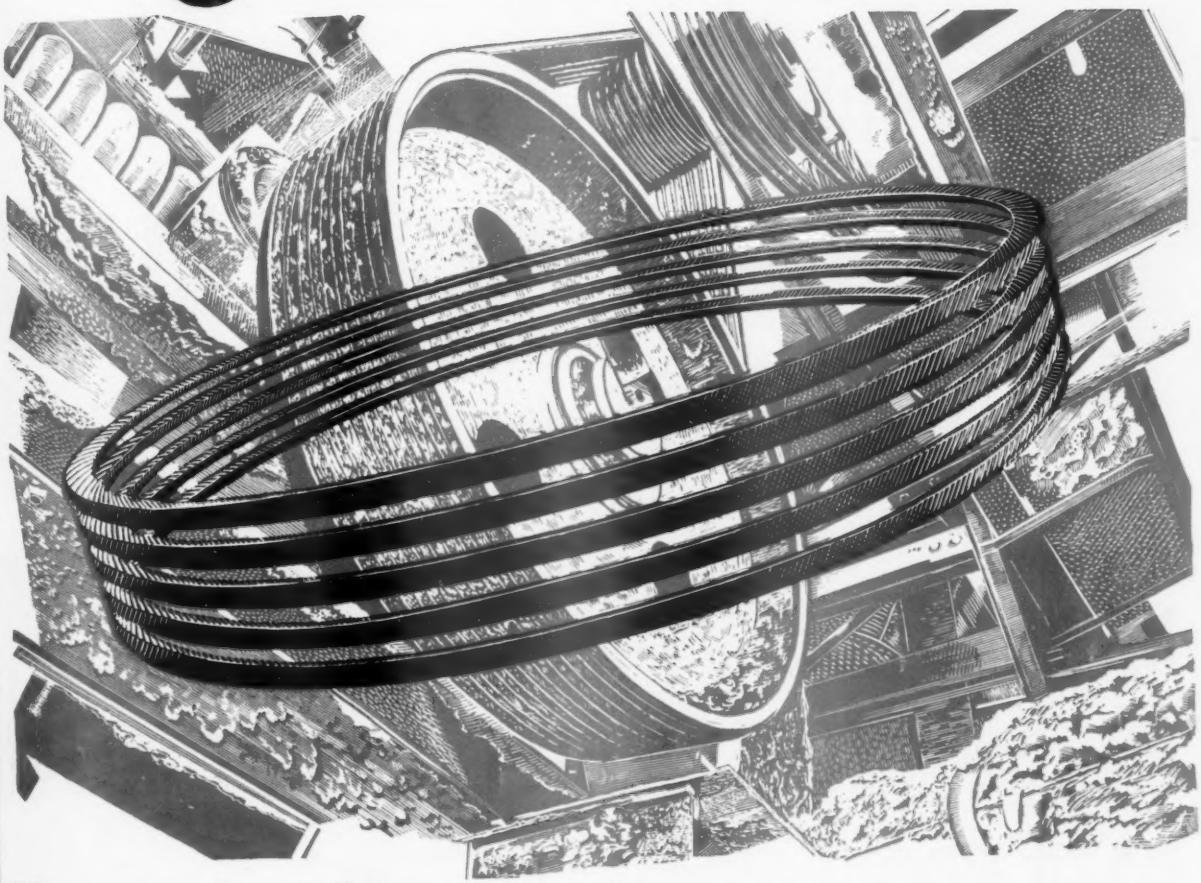


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U. S. ROYAL V-BELTS from the Power Unlimited complete belt line



"Swinging Loads" demonstrate how

balanced driving power pays off

The flywheels on stone-crushing machinery at the Bethayres Concrete Products Company in Bethayres, Pa., put V-belts under a "tremendous strain."

Not only must each set of 8 U. S. Royal V-Belts driving the flywheel operate under extremes of abrasive conditions, it must also operate on constantly changing centers. As incompressible foreign matter enters the driven rollers, they swing or oscillate to allow passage. The result is constantly changing tensions under pressures amounting to many tons!

Yet even with this constant change in tensions and the severity of the abrasive conditions, the U. S. Royal V-Belts continue to share the load for an average of one year of rock-breaking service.

The C-210's used on these V-sheave to flat-surface drives, like all of the approximately 250 "U. S." belts in 48 different sizes used throughout the Bethayres plant, have a built-in advantage. "Balanced driving power"... the result of specially developed manufacturing equipment that automatically controls weight, dimensions, density, length, and tension members . . . helps provide a uniformity, toughness, length stability and true-running smoothness that have paid off in job after job, plant after plant the nation over.

Put balanced driving power to work in your own operations. See your "U. S." Power Transmission Distributor for full stocks and expert service.

U. S. Royal V-Belts and engineering assistance for these drives supplied by "U. S." Distributor Lindsay-Oberholzer of Philadelphia, Pa.

Visit Booth 1324, Design Engineering Show, New York Coliseum, May 23-26.

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Compare Honeywell 400 with any other modestly priced system

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- **Fastest printing (with clean carbons) plus 100% simultaneity with other operations**
- **Most reliable magnetic tapes (simultaneous read-write at 96,000 decimal digits per second)**
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- **Compatible with powerful Honeywell 800 (both program language and information transfer)**

Just 14 months ago Honeywell excited the busines world with the introduction of the all-transistorized Honeywell 800. Here at last was a system so compact, powerful and efficient (and so low in cost) that it cast an entirely new light on the economics of EDP. Greate power was available to more users at lower cost.

Today Honeywell announces a new low-cost syste that extends the benefits of magnetic tape data processin to more companies than ever before. This system i Honeywell 400, a low-cost complement to the powerfu Honeywell 800.

Solves the problem of growth

Honeywell 400 automatically solves a problem tha has troubled data processing committees for years: th tough job of choosing a system powerful enough to be economical, yet not so large and expensive as to be a bur den in the early years.

Honeywell 400 is the answer for two reasons. First, th



ample capacity of the basic system will accommodate reasonable growth. Second, when still greater processing power becomes necessary, the graduation to a Honeywell 800 is a very logical and economical step.

Compatibility is Inherent

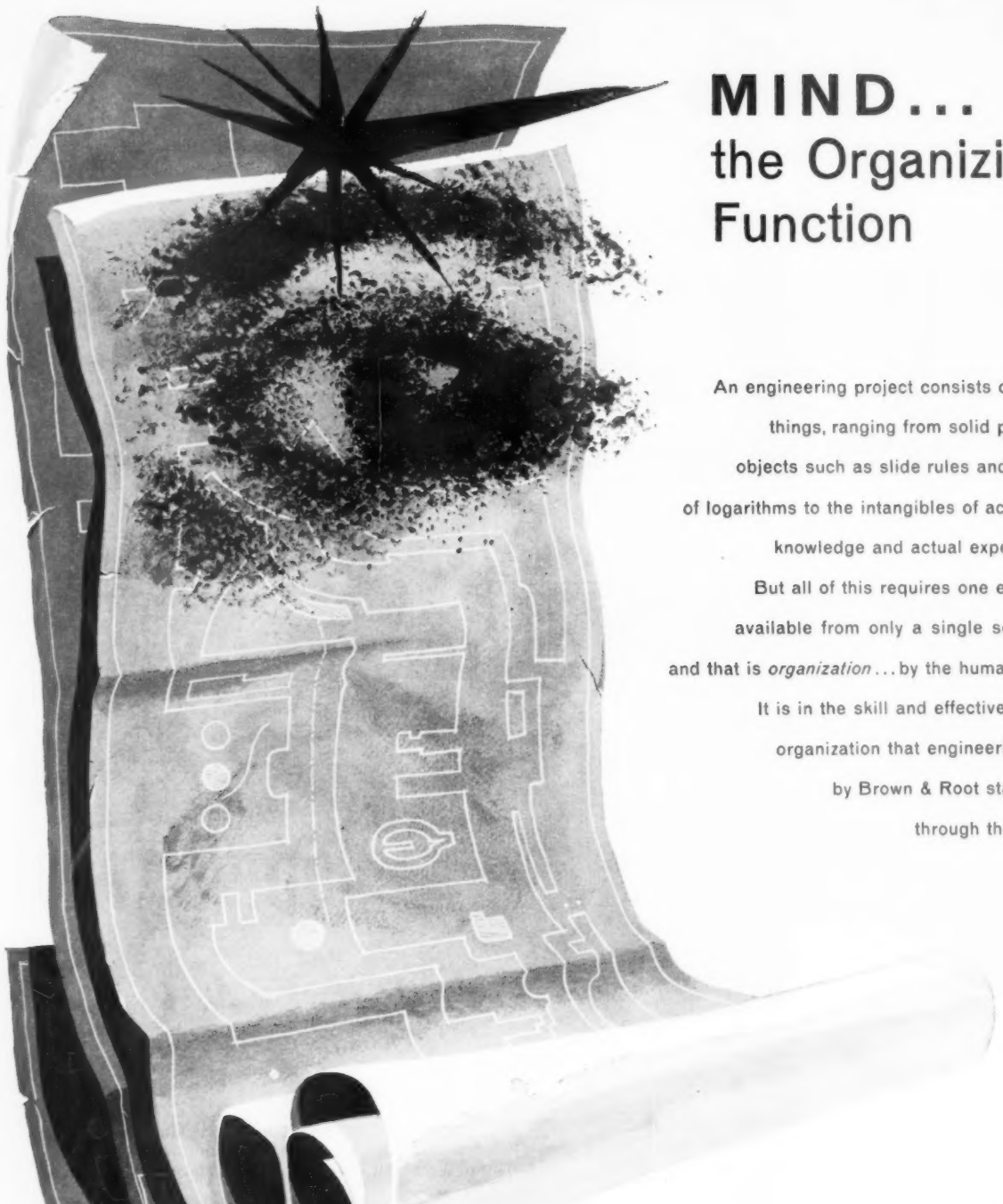
Information can be readily interchanged between Honeywell 400 and Honeywell 800 systems because they use the same magnetic tapes (as well as the same high-speed printer and card reader). Most important, a programming language is provided that can be processed by either system. When it becomes desirable to step up to a still more powerful system, there is no need for costly reprogramming. This compatibility also means that Honeywell 400 programs can be checked out on Honeywell 800 systems, an advantage that could hasten the application of work to your Honeywell 400 by as much as six months to a year.

For more facts about the new Honeywell 400, just get in touch with your nearest Honeywell Datamatic Sales Office. Or, write to Minneapolis-Honeywell, Datamatic Division, Wellesley Hills 81, Massachusetts.

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RESEARCH

Four Ways to Turn Heat Into Electricity

Westinghouse decides it can't bet on any one system, has working models in all four (pictures).

For decades, scientists have been searching for methods to convert the energy of heat directly into electrical energy. But, until recently, the search has been more or less desultory.

Scientists, because they were scientists, naturally were intrigued by the idea, but there was no need for haste. There are always ample supplies of cheap fossil fuels—coal and oil—to burn to get the heat to make the steam to run the engine to spin the generator. This is a relatively inefficient technique, but it's simple and it works. Around 90% of all today's electricity is generated this way.

• **Shortage Coming**—Now there's new urgency to the quest for a more efficient and less bulky method of making the direct transition from heat to electricity, though. Most pressing: Space vehicles have an imminent need for new sources of electricity to power their equipment. A conventional generator is much too big and heavy for a space ship. And new discoveries, particularly in materials, make new methods look possible. So the rush is on to produce alternate devices for generating power.

• **Four Recipes**—At the moment, the difficulty is that there are at least four different approaches to energy conversion—the thermoelectric generator, fuel cell, thermionic generator, and magnetohydrodynamic (MHD) generator. No one of these seems vastly superior to any other. So it's hard to know where to center research efforts. Fuel cells have been much in the news lately; before that, some major research laboratories were pleased with the promise of thermionic converters: And in recent months there has been interest too in thermoelectric and MHD generators.

As a result, a number of big companies have had to cover all bets by studying the whole field. General Electric started doing this in late 1957. A group of utility companies, in cooperation with Avco Corp., launched a somewhat similar project last November. And late last month Westinghouse Electric Corp. announced that despite its contract to design and build a 5-kw. thermoelectric generator for the Navy, it is investigating at least three other approaches to power conversion. It has working models of the four types already in operation (pictures); the MHD generator is touted as the first of its kind and size to produce power steadily.

All this activity seems to suggest that tomorrow's electricity will be converted from heat in several different ways. The choice will probably hinge on such factors as environment, space, heat source, and desired efficiency. At present, the four types of conversion under most study are in varying stages of progress.

I. Thermoelectric Generators

The 5-kw. thermoelectric generator Westinghouse will build for the Navy is based on a scientific principle discovered almost 150 years ago by a German physicist, Thomas Seebeck. He found that a flow of heat through a piece of metal produces a voltage difference between the hot and cold ends.

In the past, energy converters using this principle have been limited to low voltage and power output. Recently, however, the development of semiconductor materials (BW—Mar. 26'60,p74) has been a big help. Only a year ago Westinghouse researchers couldn't extract more than one watt from thermoelectric generators; now, using semiconductors, they have been able to build a generator rated at 100 w. output. And its 5-kw. Navy generator will be completed soon. At about the same time, Carrier Corp. will also start up a 5-kw. generator.

• **Blandishments**—Thermoelectric generators have an array of charms, particularly for military uses. They are rugged and compact, and they have no moving parts. This means heat can be converted to electricity noiselessly. In addition, in space vehicles, the absence of rotating parts will make it easier to stabilize the ship—and raise reliability.

In the Navy generator, heat will probably be supplied by diesel oil.

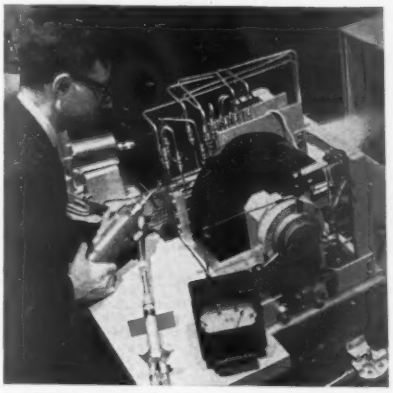
Further in the future, scientists think thermoelectric generators will work most efficiently in nuclear power plants. If a nuclear reactor were surrounded completely by thermoelectric elements, the generator's efficiency might rise to 30%. The best efficiency for a thermoelectric generator today is only about 6% (BW—Sep.6'58,p44).

II. The Mighty Fuel Cell

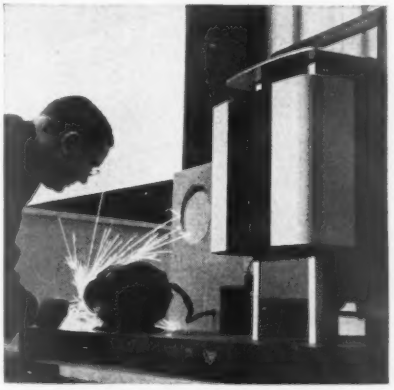
Many different kinds of fuel cells are under development in company laboratories throughout the U.S. All de-



THERMIONIC CONVERTER boils electrons off conductive metals.



MHD GENERATOR shoots an ionized gas through a magnetic field.



THERMOELECTRIC GENERATOR sends heat across junction of unlike metals.

FUEL CELL harnesses the energy from a chemical reaction to generate electricity.



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"Marcal" paper napkins are now wrapped in polyethylene film by Pomona Paper Products, Inc., Pomona, California. Soft film texture, resistance to climatic effects, less wrapper breakage and reduced packaging costs are among the reasons this Company gives for switching to polyethylene for its transparent wrapping. Machine supplier: Hayssen Manufacturing Co., Sheboygan, Wisconsin.

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Thousands of manufacturers have realized important savings by packaging with polyethylene film. Total use in 1959 was over 250 million pounds—up 650% since '53. Fresh produce, textiles, dry-cleaning, paper products, hardware, frozen food are only a few of the industries currently profiting from polyethylene film packaging.

Now even greater savings are being achieved by *overwrapping* with polyethylene on production-proved automatic machinery. One example is the "Hayssen" 51-HP machine shown above. Hayssen has a wide variety of automatic machines used successfully for the polyethylene overwrapping of such products as loose-leaf fillers, stationery and envelopes, paper napkins, paper towels, toilet tissues, handkerchiefs, crib sheets, and men's underwear. For facts on the wrapping economics of this machinery, see the column on the facing page.

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. . . under the right conditions, an MHD generator can be 80% to 90% efficient; its lack of moving parts gives it great efficiency and reliability . . .

(STORY on page 155)

pend on the energy from a chemical reaction to produce electricity (BW—Jun.27'59,p45), but they vary in the nature of the cell reaction they use, the fuel they consume, and the temperature they operate at.

A fuel cell is more complicated than a thermoelectric generator. It can also use fewer kinds of fuel as an energy source. Unlike other types of energy converters, however, a fuel cell's efficiency doesn't hinge on its size. And it's the most efficient of all the types: As much as 70% to 90% of the chemical energy can be picked up directly in the form of electrical energy.

• **Much Promise**—Westinghouse scientists are bullish about the fuel cell's future. If research in this field continues at the current rate, they think high-temperature fuel cells could well be competitive with large conventional power sources in 10 to 20 years.

Meantime, there should be special-purpose jobs for low-temperature cells (below 250C), such as the Allis-Chalmers propane gas fuel cell. Allis-Chalmers has already demonstrated its fuel cell running a tractor (BW—Oct.17'59, p39). In great Britain, another type of fuel cell, the Carbox fuel cell, is expected to go to work propelling delivery trucks and perhaps even city buses in a few years.

III. Thermionic Generators

Progress has not been so rapid recently in the development of thermionic converters. But, especially for the military, their future looks bright, too.

A thermionic generator produces electrical power by using the electrons boiled off the surface of a metal when it is heated to an extremely high temperature. Like a thermoelectric generator, it is based on the movement of electrons from a hot to a cold surface. But it differs in that its heated electrons are emitted into a vacuum instead of across the junction of dissimilar metals.

• **Roadblock**—The chief obstacle to development of thermionic generators has been the lack of a good high-temperature metal with a high heat of vaporization, combined with a low work function. But the search for suitable materials is in full swing, because thermionic devices are compact, light, simple, and highly efficient.

Because of the extremely high temperatures at which they must work, thermionic converters almost certainly couldn't be used with fossil fuels. But, like the thermoelectric generator, they seem a natural for use with nuclear power. At Los Alamos, the process has already been harnessed to produce about 40 w. of power.

IV. MHD Generators

Last of the four methods under scrutiny at Westinghouse and other companies is magnetohydrodynamics—called MHD for short. This type of generator extracts power directly from the motion of an ionized gas through a magnetic field (BW—Nov.21'59,p28).

Avco researchers have been running a 10-kw. MHD generator for some time, and they are working on a 100-kw. model in the hope of proving that costs can be brought down within reason. GE's Missile & Space Dept. has also shown a working model MHD (BW—Nov.7'59,p107).

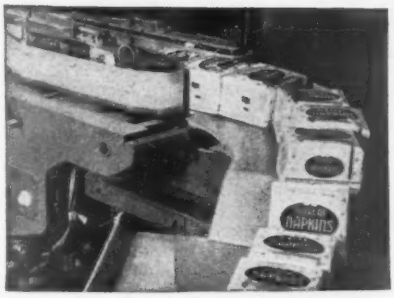
But these companies and Westinghouse have all been running up against the same problem. There isn't any material available to withstand ionized gases at heats up to 5,000F for relatively long periods.

• **Intricacies**—In any MHD generator, a hot ionized gas travels through a magnetic field applied at right angles to the gas flow. Then it comes into contact with electrodes. The electrons in the gas are deflected by the magnetic field, and they move diagonally to one of the electrodes. An electric current is created as the electrons shunt from the positive to the negative electrode and back again to the gas stream.

Under the right conditions, an MHD generator can be 80% to 90% efficient. The lack of moving mechanical parts gives it great ruggedness and reliability.

Besides the materials problem, there's the matter of how to supply the converter with a steady flow of ionized gas, though. In a space ship, this will be easy. The generator can operate off ions created in the ship's jet stream when its rocket engines are firing. When they're not, an ample supply of hot ions will be created on the ship's leading edges. These could be vented off to the generator to provide power for communications and other gear.

The MHD's prospects on the ground, though, depend on research in physics, materials, and engineering. There must be more study of the conduction of electricity in gases, and scientists must explore new geometric configurations for building the generator. Finally, it will be necessary to examine ways to reduce operating heats. **END**



How's this for return on INVESTMENT!

Assume that you are using "Hayssen" automatic machinery (see facing page), for wrapping *your* product. The table below shows typical savings, depending upon package size, of 1.25 mil standard clear polyethylene film* over the next lowest cost widely used transparent film.**

Size of Product	Packages Per Year	Approximate Savings Per Year
3½" x 6½" x 2"	10 million	$10,440
6¼" x 8" x 1½"	10 million	15,325
8" x 10½" x ¾"	10 million	24,425

Here's how these savings are calculated. If your product is item #2 above, you need about 175 sq. inches of film, including overlap, to wrap it. Based on an output of ten million packages per year, your approximate annual cost for polyethylene film would be $36,400. Conventional wrapping film would cost you about $51,725. Your savings by using polyethylene film—over $15,000! Remember too that polyethylene also saves more of your packaging dollar through less wrapper breakage—in storage, in transit, and on retail counters.

Investigate the economics of automatically overwrapping your products in film made of BAKELITE Polyethylene. As a starter, fill in and mail the coupon.

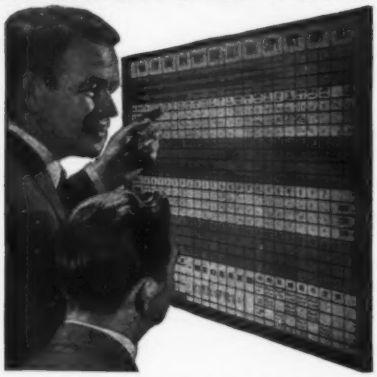
*delivered cost $.0208 per 1,000 sq. inches
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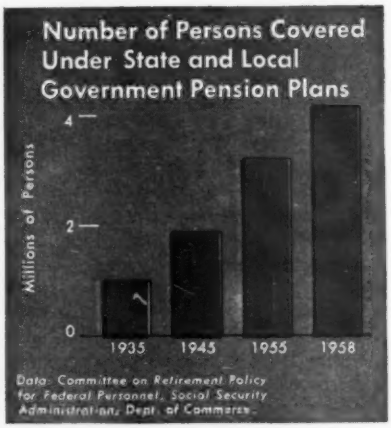
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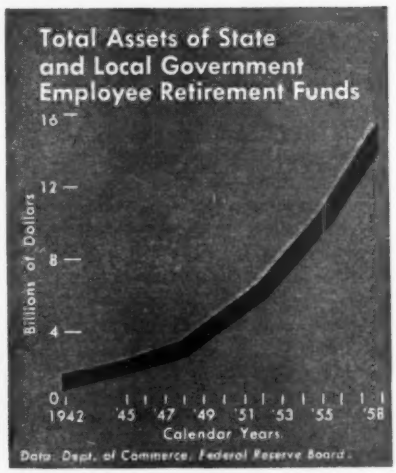
BUSINESS WEEK

A McGraw-Hill Magazine

CHARTS OF THE WEEK

Pension Funds Build Kitties





With the tribe of civil servants rapidly increasing, state and local government pension plans have been spreading their membership and piling up impressive financial holdings.

Since 1935, the number of persons covered by these plans has multiplied more than fourfold, while state and local government job rolls have doubled during the same period (BW—Apr.11 '59,p132).

The reserves and assets of these funds have grown from less than $2-billion in 1942 (the earliest year for which data are available) to close to $16-billion in 1958—a total almost twice as big as the reserves and assets of pension funds covering federal employees. They represent a reserve of more than $3,700 per member. Benefits totaling $685-million were paid in 1958.

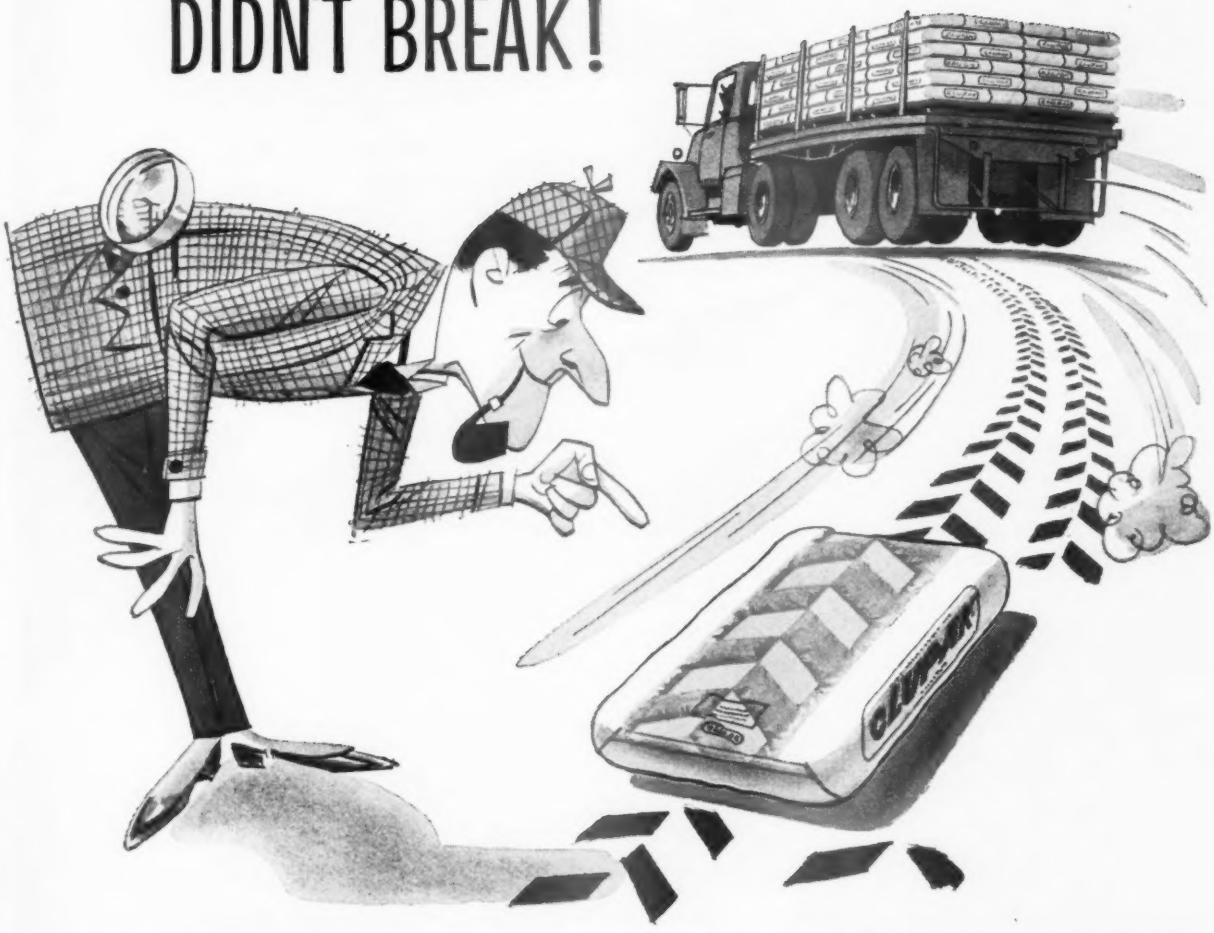
These vast resources and the manner in which they are invested have been the object of much public and private scrutiny lately (BW—Feb.6'60,p106). Investment patterns have shifted considerably. Back in 1942, more than 87% of these holdings was in some type of state, local, or federal government securities, while only 7% was in other securities. By 1958, the government securities share had shrunk to 61%, while other securities took more than 37%. Bonds account for more than 75% of the other securities category; the balance is in stocks, mortgages, member loans, and others.



ELEMENTARY...

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In Production

• • •

Nuclear Salt Water Distillation Plant In San Diego Barred by AEC Safety Unit

A safety review by the Atomic Energy Commission's advisory Reactor Safeguards Committee has ruled out a proposal to construct a $6.5-million nuclear process-heat reactor powering a salt water distillation plant in the Point Loma section of San Diego.

The advisory committee reasons that an unproven nuclear process-heat reactor—first of its kind—would pose too great a danger to San Diego's large population. Unfavorable meteorological conditions known as "temperature inversion phenomena," which trap volumes of air for days at a time and cause southern California smog, would seriously compound radiation build-up in the case of a reactor accident.

The joint AEC-Interior Dept. heat distillation project is not dead, however. Two other southern California locations are being considered: Port Ueneme and Camp Pendleton.

• • •

Electronic Computer Is Used To Locate Salt Springs Quickly

A new, quick way of locating salt springs that contaminate fresh water streams has been worked out by the U.S. Public Health Service. It substitutes an electronic computer for thousands of miles of footwork.

"It now appears probable that in the next two years we can begin opening up large, new sources of excellent fresh water in the Southwest where the salt stream problem is most prevalent," says Sen. Robert S. Kerr (D-Okla.).

Under the new method, thousands of readings from local field investigations are fed into a computer, which then finds the areas of heaviest concentration. After that, it is relatively easy to travel a stream bank with a "conductivity meter" which finds the exact source concealed beneath the water.

Sources of salt already found account for about two-thirds of the contamination, Sen. Kerr said.

• • •

Republic's Value Analysis Program Brings Sharp Cut in F-105 Costs

Republic Aviation Corp. is well on its way toward chopping the price of the $3-million F-105 airplane to $2-million. Under pressure from the Air Force, the company organized an intensive value analysis program in which purchasing, engineering, and production teams re-examined every part of the aircraft from points of view varying from basic design and material selection to packaging and delivery methods. Republic was able to gain support from most of its subcontractors and material suppliers, and additionally, from a large number of producers of government furnished equipment.

Republic, the subcontractors and materials suppliers, and government equipment each account for approximately one-third of the cost of the plane. Republic set a goal of 30% cost reduction, fought through arguments that loss of volume pushed fixed costs and engineering costs up, and in many cases managed to reverse proposed price increases. In its own house, **Republic streamlined purchasing, materials handling, reduced engineering personnel and revised parts to save costs.**

So far, on the basis of voluntary reductions, **the cost of an F-105 has come down 19%, representing about $25-million on current contracts.** The company hopes to push costs below the 30% goal, which it thinks will assure it of further orders for several hundred aircraft.

MORE NEWS ABOUT PRODUCTION ON:

• P. 162—Blow molding stampedes the plastics industry.

• • •

Westinghouse, American Electric Power Plan Experimental 750,000-Volt Line

Westinghouse Electric Corp. and American Electric Power Co. will build and operate a 750,000-volt transmission line along the Ohio River at Apple Grove, W. Va.

The utility and the electrical equipment manufacturer want to know both the technical and economic features of transmitting large blocks of power at such high voltages. The country's electric utilities now operate their transmission systems at a maximum of 345,000 v. Past experimental lines in the country have been operated at a maximum of 500,000-v. General Electric plans to have a 750,000-v. experimental line in operation in Massachusetts in 1962, and ultimately will try for 1-million v.

In transmitting electrical power, the higher the voltage, the more energy you can move. **But if you step up the voltage on existing lines you also broaden two high voltage transmission problems—more "corona" energy loss and intensified radio interference. The experimental projects will seek to overcome these problems.** The Westinghouse-AEP 750,000-v. line should be ready for testing late this year or early in 1961. Tests are expected to take three to five years.

• • •

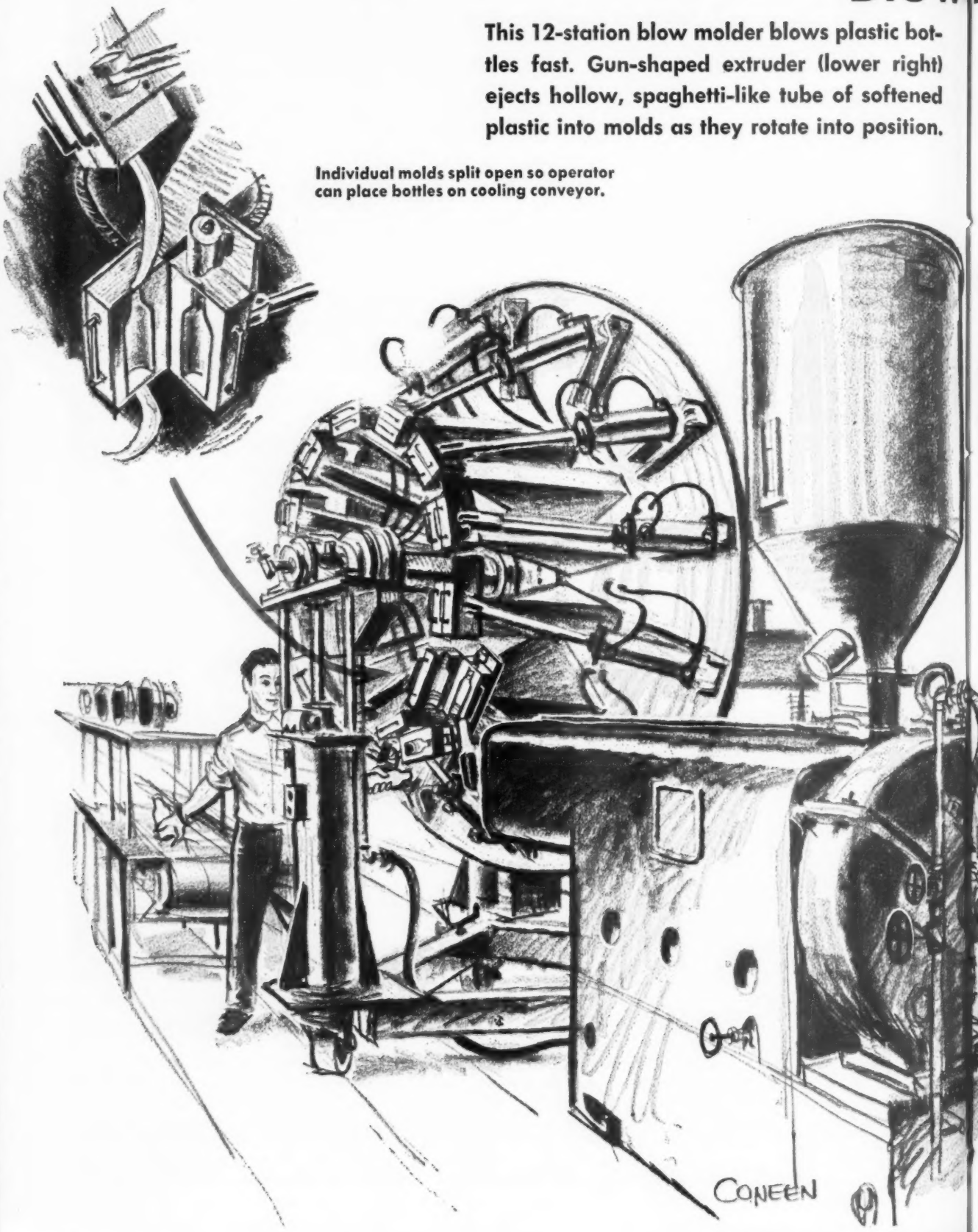
Fluoridation Device Is Tested

Optional fluoridation of drinking water may soon be available to homeowners if tests now underway in Philadelphia are successful. There, the Public Health Service is sponsoring a test of 300 home installations of a device made by Permutit that adds one part per million of fluoride salts to tap water. Floride in that amount is claimed to stop tooth decay. **Permutit's new device has no moving parts, adds fluoride in constant proportion regardless of pressure rate.** If the tests are successful, the company will lease the devices for a charge that will probably be below $3 per month.

Blow M

This 12-station blow molder blows plastic bottles fast. Gun-shaped extruder (lower right) ejects hollow, spaghetti-like tube of softened plastic into molds as they rotate into position.

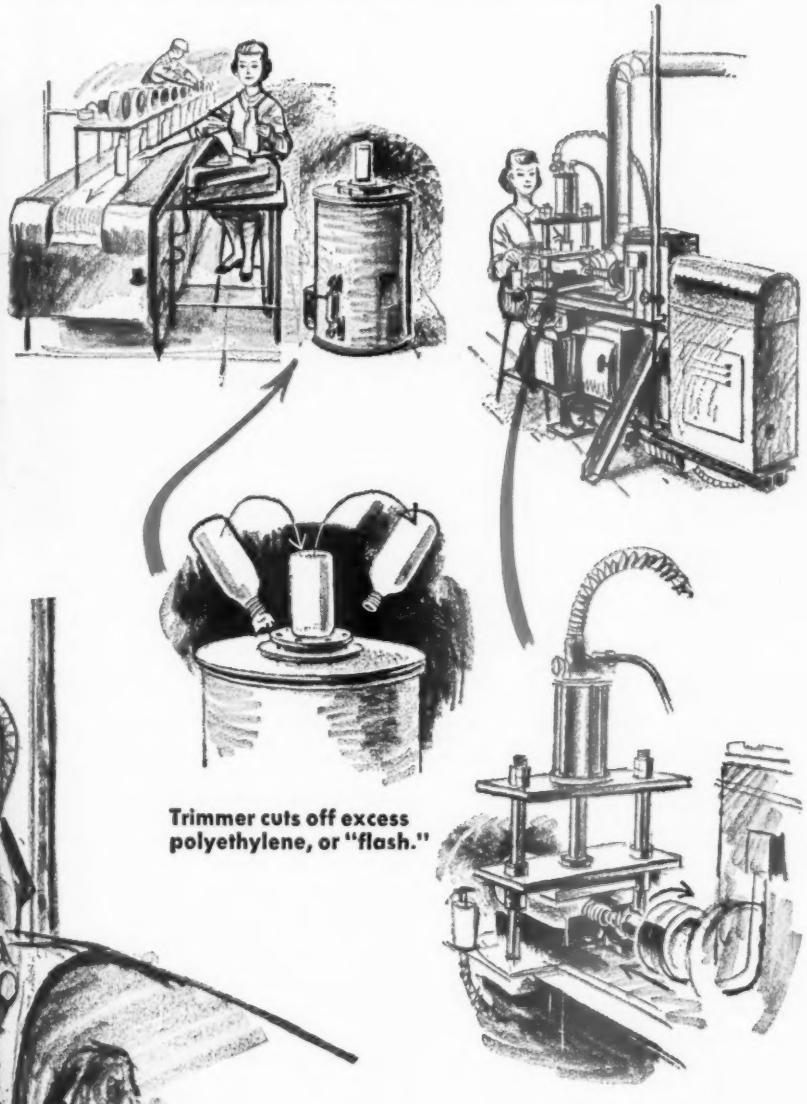
Individual molds split open so operator can place bottles on cooling conveyor.



Molding Starts Plastic Revolution

Linkup of blow molding with linear polyethylene puts plastic bottles into fast race with tin can and glass, and sets off a rush of companies into field.

Bottles coming off cooling conveyor are first weighed, then fed into drum-shaped trimmer, and finally into reamer (right) that bores out neck of bottle.



Trimmer cuts off excess polyethylene, or "flash."

Reaming device bores out bottle opening to proper size.

Blow molding, a technique new in its current application but based on principles going back at least to the early days of mechanized glass blowing, is today the latest and fastest-growing way of shaping plastics. The possibilities for plastics inherent in this production technique are viewed by qualified, if partisan, industry observers, as fantastic. Already, its impact on the container field impinges on the revolutionary.

What gives blow molding this revolutionary impact is partly the development of bigger, faster machines (drawings). But primarily it's the linkup of the new production process with a new material—linear polyethylene, one of the newer plastics. This linkup has made possible a rigid plastic bottle that in some shapes and sizes is already competitive with the tin can, a claim that can't be made by any other plastic product—not even the squeeze bottle, also made by blow molding.

For consumer and industrial plastics, the linkup has many additional possibilities—for making toys, housewares, even auto parts. What is sending blow molding into a boom right now, though, is the switch to plastic containers by most makers of light-duty liquid detergents for the household, previously marketed in cans. The consensus is that by the end of this year 75% to 85% of these products will be sold in rigid containers blow-molded of linear polyethylene.

For the producers of linear polyethylene—slightly more rugged than its older squeeze bottle cousin, conventional polyethylene—blow molding has worked almost a miracle. In the last six months, blow molders have become one of the major consumers of linear polyethylene. Until then, the companies producing it had feared a market glut, and in some cases were giving the stuff away by the carload to companies asking for sample quantities.

• **Stampede**—There's already a stampede to get in on the blow molding boom. Celanese Corp. of America, one of the major suppliers of linear polyethylene, for example, recently acquired Royal Mfg. Co., a large blow molder, just to get in the ground floor. Royal, with plants in Prescott, Ariz., and Chicago, hopes to have its newest plant, in Trenton, N. J., blowing bottles within a week or two.

Continental Can Co., Injection

. . . to get in on this new line, most of the big pioneering blow molders are gearing up to spew forth blow-plastic bottles by the millions . . .

(STORY on page 162)

Molding Co. (IMCO), Owens-Illinois Glass Co., and Plax Corp., which with Wheaton Plastics Co., are the early birds in the field, all have anywhere from one to three plants going up this year. In all, there are now probably 200 or more large and small blow molders in the business. By 1965, authorities say, there will be 1,000. Two years ago, there were about six.

This headlong rush is developing the industry into two different directions. On one side are the big early birds—the container "giants" which are integrating blow molding into their broad line of high-production bottle and can making, and plastics companies that got into the business in the squeeze bottle era. On the other side are dozens of generally smaller custom molders, turning out more limited lines of specialized blow-molded products, or doing jobs on order. The custom molders are finding more and more customers in the industrial products, toys, and housewares businesses.

• **Spur**—Several things explain blow molding's now rapidly accelerating takeoff. To begin with, as production processes go, blow molding a plastic container is relatively simple. All it involves, basically, is injecting a heated hollow sleeve of plastic into a bottle-shaped mold, then expanding or blowing out the semi-soft plastic with a shot of compressed air to make it conform to the mold.

Then, plastic containers are currently the rage among marketers because of their lightness and styling appeal. And for necked plastic containers, or bottles, blow molding is the most feasible method of production. If you tried one mold inside the other to make the hollow bottle, you'd have to get the inside mold out again through the neck of the solidified bottle. Makers of blow plastic containers, starting out with detergents, see the whole field of household cleansers, bleaches, disinfectants open to them.

For housewares, toys, and such auto parts as sun visors, heater ducts, and carburetor parts, the chief appeal is low cost; blow molding often enables the manufacturer to reduce substantially the amount of material needed—by making the product hollow instead of solid (a hollow auto sun visor blow-molded of plastic, for example). By blow molding the legs and torso of a large doll, in the 20-in. to 30-in. class, one source figures, $1.50 could be shaved off the $5 price.

• **Just Begun**—So far, of course, blow molding's potential has only been scratched. Except for the plastic baby bottle, the best-known examples of the blow molder's art today are not even in the rigid-container class, but such things as the squeeze bottle and the plastic lemon for dispensing lemon juice.

The current switch from cans to plastic containers by such makers of liquid household detergents as Lever Bros., Colgate-Palmolive, and Procter & Gamble will create an annual demand for as much as 32-million lb. of linear polyethylene—equal to one-third of linear polyethylene's total production last year.

To get in on this new line, most of the big, pioneering blow molders are gearing up to spew forth blow-plastic bottles by the millions. Celanese's Royal, for example, will turn out 100,000 to 240,000 containers a day on its four production lines at the new Trenton plant.

• **Big One**—It's to get into this high-speed production that Royal has developed its 12-station blow molding machine (drawing, pages 162-3). As each individual mold on the big wheel rotates into position beside the extruder, the two halves of the mold clamp together around the spaghetti-like tube of softened plastic. Just beyond the point where the molds clamp shut, a special air injection device slams into the end of the mold, and the container is "blown."

After the mold splits open again, and the container is removed, the still hot container moves, on the cooling conveyor, past a series of cooling fans to drop its temperature from around 200F to about 80F, so it can be handled easily. After passing through the trimmer and reamer, it is ready for printing.

As time goes on, this type of machinery is going to get even fancier and more automatic. Royal is looking for ways of automating the trimming and stacking. American Can Co. is known to feel that higher speed is a must to make blown plastic containers fully competitive with cans produced nearly 10 times as fast on can lines; and industry talk has it that American has developed blow molding machinery perhaps 25% faster than any now running.

Machinery such as Royal's is naturally expensive—$40,000 for each extruder and 12-station molder, plus about $2,500 for each set of a dozen molds, with a full inventory ranging from 150 to 300 sets. Development costs for companies entering the business are heavy. Brockway Glass Co., Brockway, Pa., which aims at a July production date, says it spent over $1-million developing its own blow molding machines.

• **Custom Molders**—The high cost and specialized nature of these big machines put them beyond the reach of smaller companies. That's why most companies rushing into blow molding will be pointing toward the custom molder's traditional niche. They won't have the capacity to compete for larger orders. But because they can turn around quicker and their machines are more flexible, they can handle the shorter runs and such specials as fish-shaped soap containers, and the like.

Their machines are not so complex—usually they're hand-tended and of the single or double mold variety. One good example is the German-built Kautex machine, sold here by Kautex-U. S. Sales Co. of New York. This can be set up to operate continuously, with its extruder geared down to a rate the smaller, slower blow molder can keep up with.

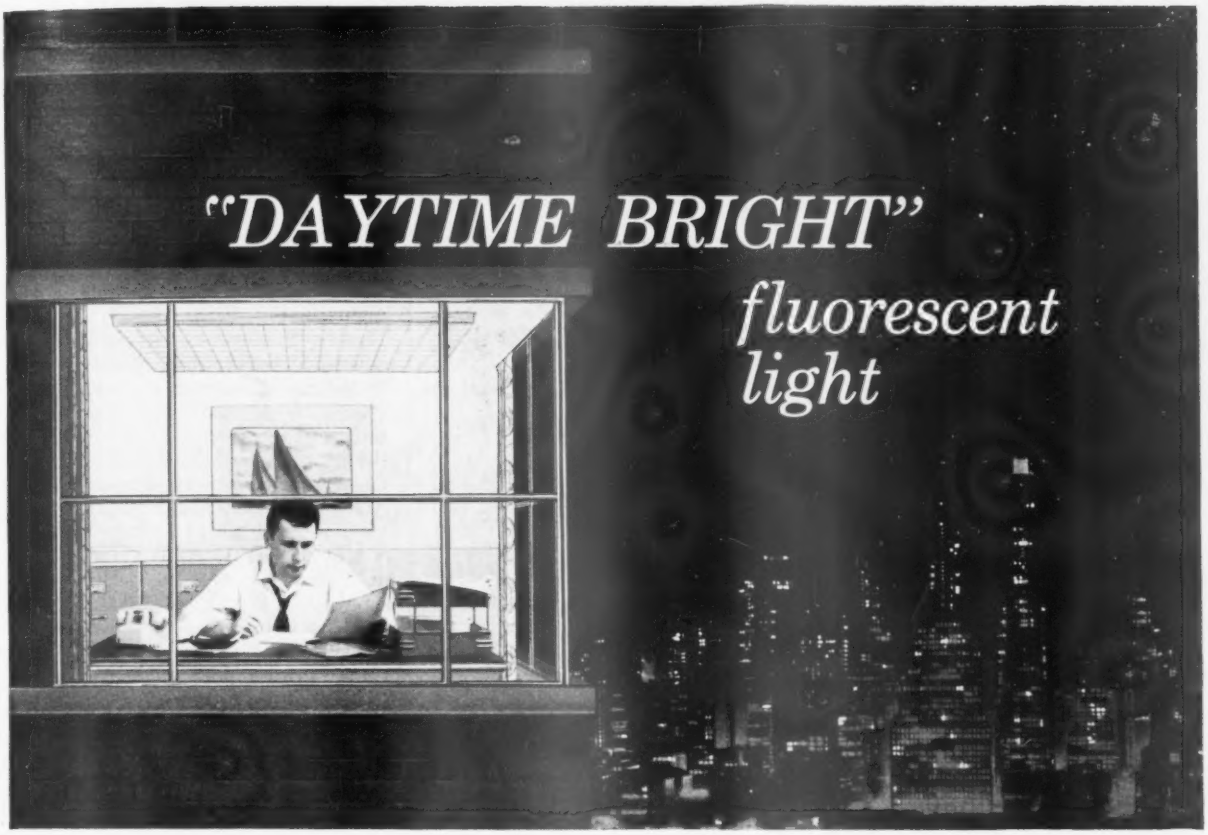
• **Roadblocks**—The basic principles underlying blow molding—as an Owens-Illinois spokesman notes—were incorporated in the first automatic glass bottle machinery in the early 1900s. Honors for being the first with a blown plastic bottle probably belong to Plax and its squeeze bottle for Stopette, a deodorant, in 1947. Plax, now owned jointly by Monsanto Chemical Co. and Emhart Mfg. Co., was until 1957 owned by Emhart and Owens-Illinois.

The two things most responsible for blow molding's disappointingly slow progress between 1947 and its present forward surge have been the lack of a suitably rigid plastic, and patent difficulties. (Of course, since the basic concept of blow molding is as old as the Phoenicians, you can't very well patent the basic concept; but you can patent machines embodying original ways of doing it automatically.)

• **Patent Hassles**—The pioneers in the field, most of them with a background in cans or bottles, sought to hide their knowhow behind a veil of secrecy, and keep their processes to themselves. In those years, an early blow molder recalls, customers just weren't allowed in the factory proper, even if they had million-dollar orders on the books.

Patent infringement suits, and threats of suits, were also the order of the day. The basic area of contention in much of this litigation involved the way in which air is blown into the softened plastic sleeve to shape it. Different ways of doing this were developed—through the open end of the hollow sleeve, or hypodermically into the neck, side, or bottom of the container.

But decisions in some suits opened the door a bit, some of the earliest



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patents neared the end of their term, and U.S. machinery builders got licenses for German and English patents. Though at least two patent suits involving the top six companies are still reported to be pending, equipment makers foresee little further difficulty so long as their machines don't duplicate another machine's way of blowing in the air.

Two companies that helped open up the field were Kautex-U.S. Sales, and Blow-O-Matic Corp., of Bridgeport, Conn.; both first exhibited their equipment at the 1958 Chicago National Plastics Exhibition. Scores of other equipment makers have since come in; at last count, around 40 were offering blow molding equipment. Some of the more important ones; Auto-Blow Corp., Bridgeport, Conn.; Air-Formed Products Corp., Nashua, N. H.; Modern Plastic Machinery Corp.; and F. J. Stokes Corp., Philadelphia.

• **Cheap but Rugged**—Many in the field, however, feel the real block to blow molding was not patent troubles but the lack of a suitably cheap but rugged plastic until linear polyethylene came into the blow molding picture in the last couple of years.

Linear polyethylene's assets for blow molding are many. It's cheap, lightweight, easily worked and colored. Still better, it's tough enough so that the wall thickness of a linear polyethylene container can be half that of a conventional polyethylene container. That makes linear bottles little more than half the cost, even though linear is slightly more costly per pound, 38¢ against 32½¢ for conventional polyethylene. It's linear's thin-walled construction that makes it competitive with metal and glass.

• **Still Some Hurdles**—Not all the material problems are solved yet, by any means. Polyethylene is difficult to print on. It's also to some extent permeable, so it can't be used to package the more volatile substances such as perfume. Plastics companies are well aware of the deficiencies. One reason Celanese bought Royal was to develop a closer working relationship between molding and making the basic polymer.

Ease of handling and merchandising appeal are the main reasons why manufacturers are switching now from metal and glass to blown plastic containers. On a strict cost basis, only the smaller blow molded containers are competitive in price. Others cost a bit more—but if you count in shipping weight (plastic is about one-tenth that of glass), breakage, and extra packaging for glass, the cost becomes more nearly competitive. And plastic producers point out that, historically, polymer prices have shown a tendency to decline; if linear does the same, its inroads will be even more startling. **END**



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Closing the Trade Split in Europe

A bitter, almost sullen hostility has been creeping into the relations between Western Europe's two trading blocs—the six-nation European Economic Community (EEC) and the seven-nation European Free Trade Assn. (EFTA). Until this week it seemed that the two blocs, the first led by France and West Germany and the second by Britain, soon would be engaged in a kind of half-economic and half-political warfare. That, at any rate, was the implication of some remarks Prime Minister Macmillan allegedly made in Washington last week in the course of protesting to the State Dept. about the support Washington has been giving to EEC.

Now the atmosphere has improved somewhat, thanks largely to a decision by the West German government to try once more for a compromise between the two blocs. This German move could well delay application of the proposals for an acceleration of the Common Market timetable that were made recently by the executive body of EEC, known as the Commission. But the delay, or even some modification of these proposals, will not be too high a price for the EEC nations to pay if it removes the danger of a trade war in Europe.

For the U. S., this clash between the Six and the Seven is a sorry spectacle, indeed. It has been especially discouraging to find Britain, on whom we normally place so much reliance, still refusing to adjust to the Franco-German effort to achieve economic and political unity. From the beginning of the Marshall Plan, this country has backed the movement toward European integration. Our only regret has been that Britain did not see fit to join this movement but instead has met every step taken on the Continent, from the launching of the Coal & Steel Community, with a hostile attitude.

Acceleration and Tariff Cuts

As with so many problems in international relations, Europe's trade split is not a black-and-white affair. As things stand today, Britain and its partners in EFTA have important economic interests at stake. Some of Pres. de Gaulle's political ambitions also give them legitimate cause for concern. But the U. S. has clearly demonstrated its awareness of these facts, not only in its handling of NATO affairs but also in the initiative this country took last January in forming the special Atlantic economic body consisting of all 18 nations of Western Europe plus the U. S. and Canada. In taking this economic initiative, Washington also was interested, and quite rightly, in trying to protect American trading interests in Europe.

Since that time, the EEC Commission came forward with its proposals to accelerate the timetable for cutting tariffs within the six-nation Common Market and, in addition, for liberalizing its common external tariffs by providing for a 20% cut below planned levels. It was because of this second feature that the U. S. officially approved the Commission plan in the joint communique that was issued at the close of Chancellor Adenauer's recent talks with Pres. Eisenhower.

However, the Commission proposals called for the introduction on July 1 this year of a great deal more discrimination against imports from the Seven and from other outside nations than originally had been scheduled for such an early date. In the process, there would be a fairly substantial increase in the external tariffs of West Germany, Belgium, and the Netherlands. The proposals also were meant to shatter the hopes the EFTA nations still had that they could associate themselves with EEC in a large free trade area. It was these features that aroused such bitter opposition from EFTA and also from many West German and Dutch businessmen.

It now seems possible that EEC will fall back temporarily on its original timetable and simply cut internal tariffs by 10% on July 1. On the same date EFTA no doubt would go ahead with its scheduled 20% cut, thus bringing itself even with EEC. That would still leave open the question of how to bridge the gap between the two blocs—unless, meanwhile, they should agree to extend their tariff cuts to each other. In this case, of course, Washington would expect both blocs to generalize these concessions, on a reciprocal basis so that the U. S. and other members of the General Agreement on Tariffs and Trade would not suffer automatic discrimination.

In the absence of such an arrangement, or of some compromise on the Commission plan, the U. S. might be well advised to propose ad hoc devices that would widen the area of trade between EFTA and EEC, and between the U. S. and both blocs.

One such device would be a mutual lowering of tariffs by the two trading blocs on certain key products. For example, all 13 nations might lower their auto tariff to 10%, or to approximately the U. S. level. This would give the British auto industry the same chance at the German market as the Germans would have at the British market. At the same time, it would tend to give the U. S. auto industry the same chance to compete in the European market as a whole that European producers now enjoy in the U. S.

It is clearly time for the governments of Western Europe, and for the U. S. government, to make a more determined and imaginative effort than they have in the past to resolve this vitally important issue. Irreparable damage will be done to the West as a whole if Europe does not close the economic and political rift that has been dividing it.

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THE $11 BILLION PROBLEM

With $11 billion worth of advertising roaring in on consumers this year, how many messages will go in one ear and out the other? What, more importantly, will happen to yours?

We'd like to suggest one way to avoid this non-stop route to nowhere. Take the Post road. Your ads will be absorbed and appreciated in The Saturday Evening Post and by the right people, too. We can prove it.

The Post is *not* a magazine that's flipped through and flipped away, or a medium where commercials come and go in wild profusion. Its compelling editorial content makes readers spend more time with the Post... (and more time with your ad)... return to it more often.

The latest studies prove your ad page in the Post will be seen 30,861,000 times each issue. (A bigger total, incidentally, than either *Life* or *Look* delivers.)

Further, Post readers are Influentials — persuasive local leaders who have the highest income of all magazine readers in the big Post field. And they welcome your advertising — 9 out of 10 say they like the advertisements in the Post!

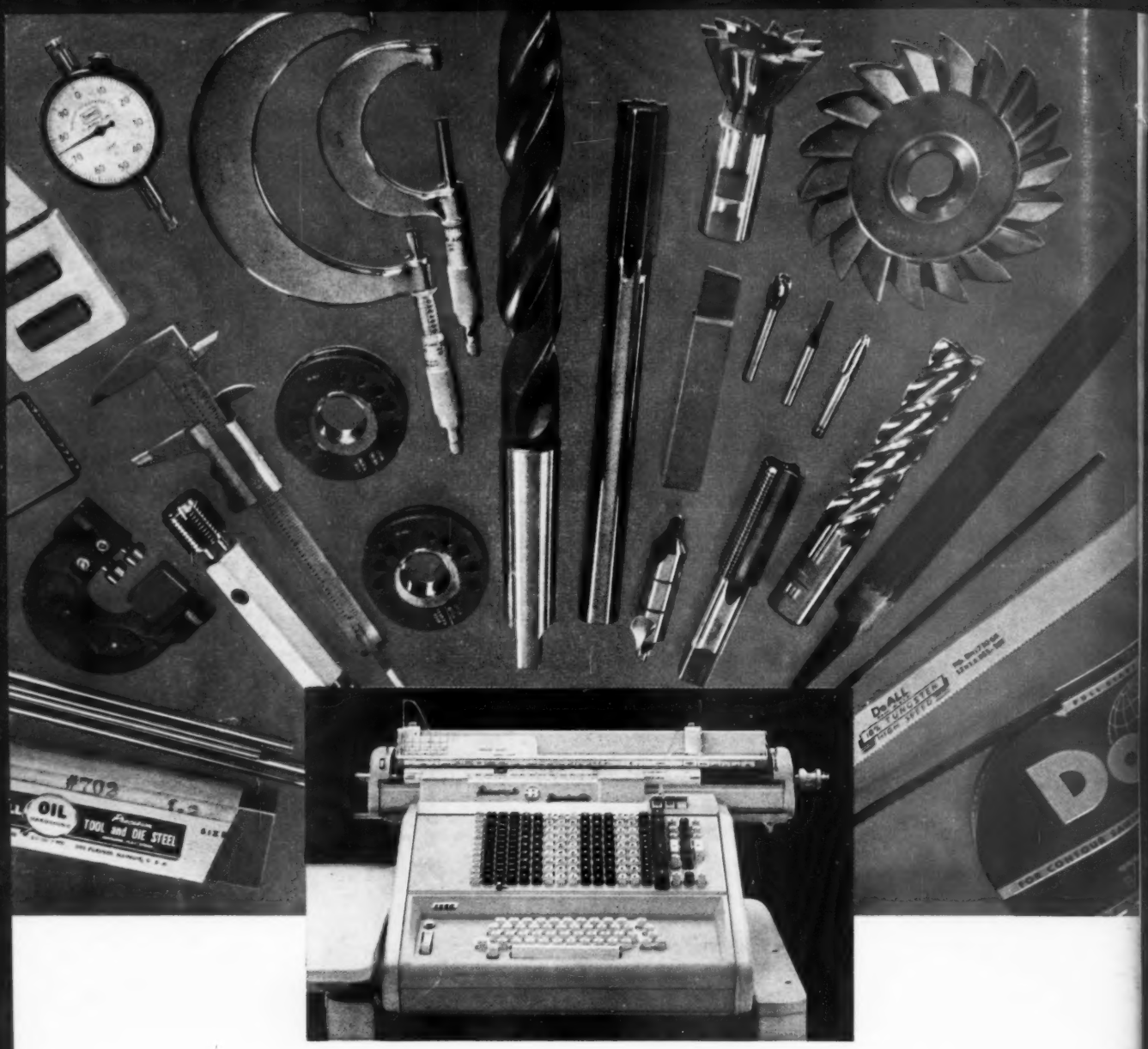
In a dozen words, it comes to this: *If you want a real "stopper," you want The Saturday Evening Post.*

A CURTIS MAGAZINE

The Saturday Evening POST

THE INFLUENTIALS' MAGAZINE

YOU GET THROUGH TO PEOPLE (INFLUENTIAL PEOPLE) IN THE POST



BURROUGHS TYPING ACCOUNTING MACHINES AT THE DoALL COMPANY CUT SALES ANALYSIS TIME 50%

The scene: The DoAll Company, originator of the metal cutting band saw and a leading distributor to the giant metalworking industry. **The job:** 300,000 invoices separated into 100 classifications, 90,000 purchase orders, general ledgers, detailed sales analyses and all payrolls. **The equipment:** Burroughs Typing Sensimatic Accounting Machines. **The results,** in Board Chairman Leighton A. Wilkie's words: "Phenomenal processing of purchase orders, payroll and invoices, and truly sensational time savings on sales analysis work—over 50%!"

Burroughs and Sensimatic—TM's

Burroughs automation equipment ranges from accounting machines to giant electronic computer systems. It's supported by outstanding systems knowledge and known for outstanding results. For details, action—and results—call our nearby branch now. Or write Burroughs Corporation, Detroit 32, Michigan.

Burroughs Corporation

"NEW DIMENSIONS / in electronics and data processing systems"

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